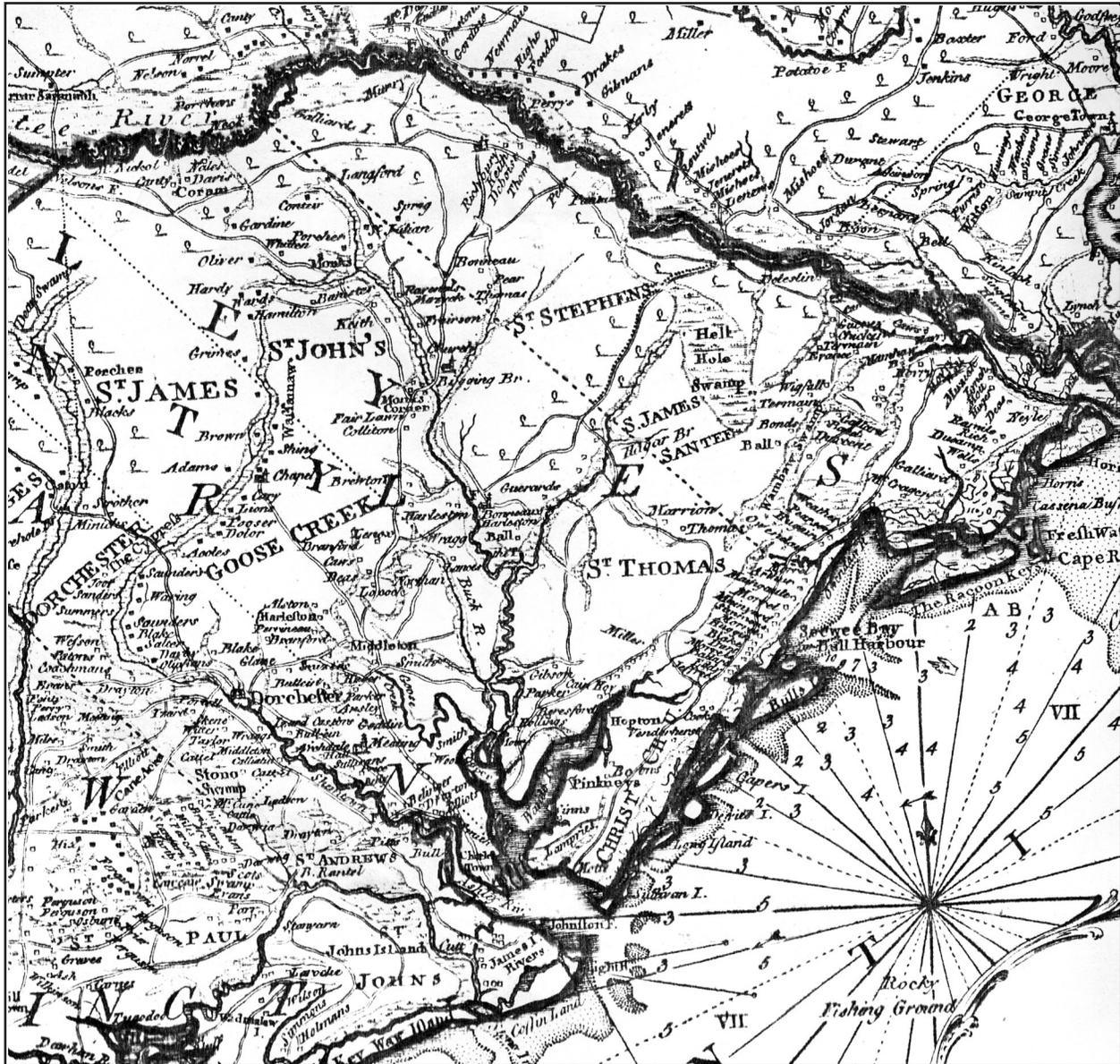
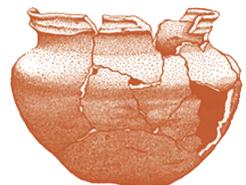


A Cultural Resources Management Plan for the Cooper River Drainage

Berkeley County, South Carolina



New South Associates
6150 East Ponce de Leon Avenue
Stone Mountain, Georgia 30083



Cultural Resources Management Plan for the Cooper River Drainage

Berkeley County, South Carolina

Report submitted to:

South Carolina Department of Health and Environmental Control, Columbia

Report prepared by:

New South Associates • 6150 East Ponce de Leon Avenue • Stone Mountain, Georgia 30083

Natalie P. Adams – Principal Investigator and Author

June 6, 2004

New South Associates Technical Report #1170

ABSTRACT

This Cultural Resource Management Plan provides information on the significant archaeological sites, standing structures, and other features that have been recorded in the Cooper River Valley, Berkeley County, South Carolina. It also presents the legislation, laws, and permitting processes that protect them. Recommendations are given to help Berkeley County and the Town of Moncks Corner further administer these important cultural resources and stay abreast of new information regarding important cultural resources as it becomes available.

Recommendations are made for becoming Certified Local Government, which can assist in funding and training for historic preservation efforts. The recent creation of the Berkeley County Special Area permit will help direct development away from National Register listed properties and help retain the historic integrity of the area. It is recommended that the county consider extending this protection to sites that have been determined to be eligible but have never been listed.

The County and Town should advertise to local property owners about the financial incentives for preserving National Register listed properties and the tax benefits of conservation easements. They may also want to consider creating some county and town level financial incentives to encourage historic preservation.

Berkeley County and the Town of Moncks Corner should also find ways to increase heritage tourism within the study area. We have recommended a comprehensive driving tour booklet that highlights the history of the area and provides specific information on accessible historic sites and structures. Also important is increasing the public awareness of the historic significance of the entire area and educating citizens about the fragility of these non-renewable resources. By creating more opportunities for public participation, the County and Town will likely increase support for preservation efforts and recruit new stewards for historic properties.

ACKNOWLEDGEMENTS

New South Associates would like to thank a number of people who assisted with this project. First, we would like to thank Mr. James Hackett of Ocean and Coastal Zone Resource Management (OCRM) who directed the cultural resources committee for the Cooper River SAMP and who managed this project. We would also like to thank Ms. Madelyn Robinson of the Berkeley County Planning Office, Mr. John Bolton of the Moncks Corner Planning Office, and Mr. Greg Rines – GIS coordinator for Berkeley County. They provided information on their comprehensive plans, future planning efforts, and GIS data to assist in our work.

Others who provided information include Ms. Jean Guerry of the Berkeley County Chamber of Commerce; Ms. Ann Propst of the Berkeley County Historical Society; Ms. Elizabeth Warner of Santee Cooper; Mr. Bob Morgan of the US Forest Service; Mr. David Jones of SC Parks Recreation and Tourism; Mr. Barry Jurs; Mr. Chris Judge and Ms. Emily Cope of SC Department of Natural Resources; Ms. Katherine Saunders of Historic Charleston Foundation; Mr. Chad Long, Ms. Valerie Marcil, and Mr. Brad Sauls of SC Department of Archives and History; Mr. Wayne Roberts and Ms. Bonnie Frick of SC Department of Transportation; Dr. Jon Leader, Mr. Keith Derting, and Ms. Diane Boyd of SC Institute of Archaeology and Anthropology; Mr. Carl Steen of Diachronic Research Foundation, and Dr. Eric Poplin of Brockington and Associates. Many thanks to all of you for answering questions, providing data, and sending maps, and apologies to anyone whose assistance we've failed to mention.

TABLE OF CONTENTS

| | |
|--|------|
| ABSTRACT..... | III |
| ACKNOWLEDGEMENTS | IV |
| TABLE OF CONTENTS | V |
| LIST OF FIGURES | VIII |
| LIST OF TABLES..... | IX |
| I. INTRODUCTION AND GOALS | 1 |
| II. ENVIRONMENTAL CONTEXT AND LAND USE..... | 5 |
| INTRODUCTION..... | 5 |
| PHYSIOGRAPHY AND SOILS..... | 5 |
| CLIMATE..... | 6 |
| FLORA | 8 |
| CURRENT LAND USE | 8 |
| III. THE CULTURAL CONTEXT | 11 |
| PREHISTORIC CONTEXT..... | 11 |
| Paleoindian | 11 |
| Archaic Period..... | 11 |
| EARLY WOODLAND PERIOD..... | 12 |
| Middle Woodland | 16 |
| Late Woodland..... | 17 |
| Mississippian Period | 17 |
| Protohistoric Period | 18 |
| HISTORIC OVERVIEW | 20 |
| IV. RESEARCH DESIGN..... | 29 |
| BACKGROUND RESEARCH..... | 29 |
| ANALYSIS..... | 29 |
| V. CULTURAL RESOURCE LEGISLATION AND PERMITTING..... | 31 |
| FEDERAL LEGISLATION..... | 31 |
| Section 106 National Historic Preservation Act Of 1966, As Amended | 31 |
| STATE AND LOCAL LEGISLATION | 34 |
| Protection Of State Owned Or Lease Historic Properties..... | 34 |
| Coastal Zone Management Act Of 1976 | 34 |
| DHEC MINING PERMITS | 35 |
| hazardous waste management facilities (dhec) | 35 |

| | |
|---|-----|
| BERKELEY COUNTY SPECIAL AREA PERMIT | 35 |
| STATE LAW CONCERNING CEMETERIES..... | 36 |
| SOUTH CAROLINA UNDERWATER ANTIQUITIES ACT..... | 36 |
| VI. PREVIOUS RESEARCH..... | 37 |
| ARCHITECTURAL STUDIES | 37 |
| ARCHAEOLOGICAL STUDIES | 37 |
| East Branch | 38 |
| Upper West Branch..... | 38 |
| Lower West Branch..... | 40 |
| CEMETERY STUDIES | 41 |
| VII. THE RESOURCES | 43 |
| THE EAST BRANCH..... | 43 |
| National Register and National Historic Landmark Sites..... | 43 |
| Standing Structures | 52 |
| Archaeological Sites | 52 |
| Cemeteries | 52 |
| UPPER WEST BRANCH..... | 56 |
| National Register Sites | 56 |
| Standing Structures | 60 |
| Archaeological Sites | 60 |
| Cemeteries | 64 |
| LOWER WEST BRANCH..... | 66 |
| National Register Sites | 67 |
| Standing Structures | 67 |
| Archaeological Sites | 76 |
| Cemeteries | 76 |
| VIII. RECOMMENDATIONS | 79 |
| ENCOURAGING PRESERVATION..... | 79 |
| RETAINING HISTORIC INTEGRITY | 81 |
| PARTICIPATION IN THE CERTIFIED LOCAL GOVERNMENT PROGRAM..... | 81 |
| ENCOURAGING PUBLIC OUTREACH AND EDUCATION..... | 82 |
| IDENTIFYING NEW RESOURCES AND DETERMINING THE CHANGING CONDITION OF KNOWN RESOURCES..... | 83 |
| SUMMARY..... | 84 |
| REFERENCES CITED..... | 87 |
| APPENDIX A: SECTION 106, NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED | 101 |
| APPENDIX B: PROTECTION OF STATE OWNED OR LEASE HISTORIC PROPERTIES (SC CODE OF LAW CHAPTER 12, TITLE 60) | 103 |
| APPENDIX C: COASTAL ZONE MANAGEMENT ACT OF 1976 (SC CODE OF LAW CHAPTER 39, TITLE 48) | 104 |

APPENDIX D: THE SOUTH CAROLINA MINING ACT (SC CODE OF LAW CHAPTER 28, TITLE 48) AND THE MINING COUNCIL OF SOUTH CAROLINA (SC CODE OF LAW CHAPTER 89) 105

APPENDIX E: HAZARDOUS WASTE MANAGEMENT FACILITIES: DHEC (SC CODE OF REGULATIONS 61-104) 106

APPENDIX F: BERKELEY COUNTY SPECIAL AREA PERMIT 107

APPENDIX G: STATE LAWS CONCERNING CEMETERIES (CHAPTER 43, TITLE 27) 108

APPENDIX H: THE SOUTH CAROLINA UNDERWATER ANTIQUITIES ACT OF 1991 (SC CODE OF LAWS, SECTION 54-7-610 ET SEQ.) 109

APPENDIX I: CONSERVATION EASEMENT INFORMATION 110

LIST OF FIGURES

| | |
|---|----|
| Figure 1. Map of the Cooper River Study Area..... | 2 |
| Figure 2. Thorton-Morden Map circa 1695 showing the locations of Historic Indian Groups and European Settlers..... | 19 |
| Figure 3. South Carolina Parishes in 1775 (in Edgar 1998)..... | 21 |
| Figure 4. The 1773 Cook Map..... | 23 |
| Figure 5. The 1820 Vignoles and Ravenel Map in Mills' 1825 Atlas of South Carolina..... | 24 |
| Figure 6. Cooper River Plantations in 1842 (from Irving 1932). | 27 |
| Figure 7. Cooper River National Register District..... | 44 |
| Figure 8. Locations of Significant Standing Structures Examined by Preservation Consultants in 1989, East Branch of the Cooper River Valley..... | 53 |
| Figure 9. Locations of Archaeological Sites Listed, Eligible or Potentially Eligible in the East Branch of the Cooper River Valley..... | 54 |
| Figure 10. Locations of Recorded Cemeteries in the East Branch of the Cooper River Valley..... | 55 |
| Figure 11. Locations of National Register Listed Properties in the Upper West Branch of the Cooper River Valley..... | 57 |
| Figure 12. Locations of Significant Standing Structures Examined by Preservation Consultants in 1989, Upper West Branch of the Cooper River Valley..... | 61 |
| Figure 13. Locations of Archaeological Sites Listed, Eligible or Potentially Eligible in the Upper West Branch of the Cooper River Valley..... | 62 |
| Figure 14. Locations of Recorded Cemeteries in the Upper West Branch of the Cooper River Valley..... | 63 |
| This page has been intentionally left blank due to the oversized figure on next page..... | 68 |
| Figure 15. Location of National Register Listed Properties in the Lower West Branch of the Cooper River Valley..... | 69 |
| Figure 16. Location of Significant Standing Structures Examined by Preservation Consultants 1989, Lower West Branch of the Cooper River Valley..... | 71 |
| Figure 17. Locations of Archaeological Sites Listed, Eligible, or Potentially Eligible for the National Register in the Lower West Branch of the Cooper River Valley..... | 73 |
| Figure 18. Locations of Recorded Cemeteries in the Lower West Branch of the Cooper River Valley..... | 77 |

LIST OF TABLES

| | |
|---|----|
| Table 1. Contributing Resources in the Cooper River National Register Historic District..... | 45 |
| Table 2. National Register Listed and Potentially Eligible Standing Structures in the East Branch Region as recorded by the Berkeley County 1989 Survey. | 56 |
| Table 3. National Register Listed and Potentially Eligible Archaeological Sites in the East Branch Region..... | 58 |
| Table 4. Recorded Cemeteries Within the East Branch of Cooper River Region..... | 59 |
| Table 5. National Register Listed Properties in the Upper West Branch of Cooper River..... | 60 |
| Table 6. National Register Listed, Eligible and Potentially Eligible Standing Structures in the Upper West Branch Region as recorded by the Berkeley County 1989 Survey. | 64 |
| Table 7. National Register Listed, Eligible, and Potentially Eligible Archaeological Sites in the Upper West Branch Region. | 65 |
| Table 8. Recorded Cemeteries Within the Upper West Branch of Cooper River Region. | 66 |
| Table 9. National Register Listed Properties in the Lower West Branch of Cooper River. | 67 |
| Table 10. National Register Listed and Potentially Eligible Standing Structures in the Lower West Branch Region as recorded by the Berkeley County 1989 Survey..... | 67 |
| Table 11. National Register Listed, Eligible, and Potentially Eligible Archaeological Sites in the Lower West Branch Region. | 75 |
| Table 12. Recorded Cemeteries Within the Lower West Branch of Cooper River Region. | 76 |

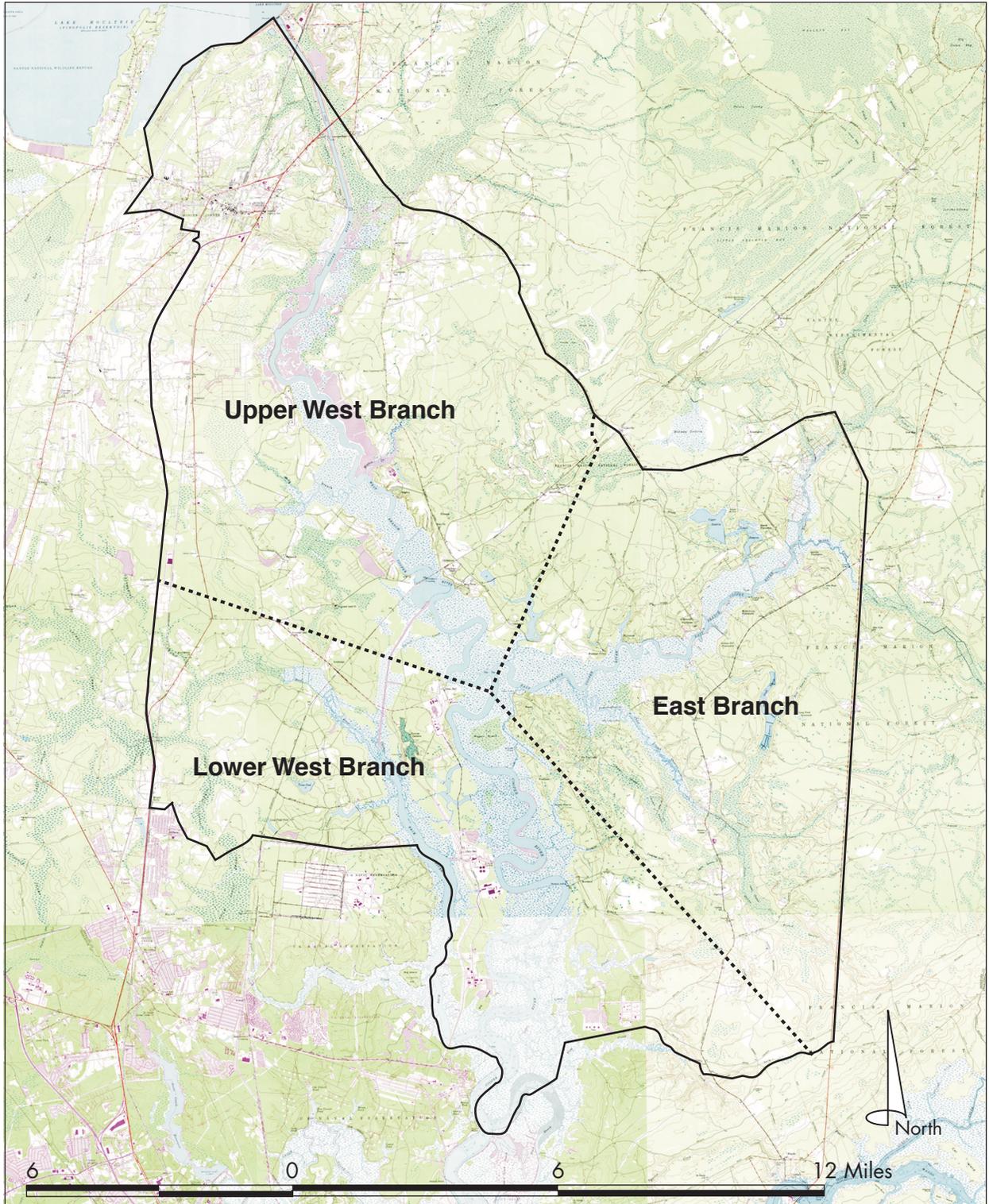
I. INTRODUCTION AND GOALS

The Cooper River area of Berkeley County (Figure 1) contains some of the state's most important cultural resources. These resources contribute to the area's feeling of community by providing a connection to the past and instilling civic pride. Some of these resources can also serve as tourist attractions or educational opportunities. Native Americans have used the river, tributaries, and its surrounding environs as a source of food as well as raw materials for the making of clay pots, stone tools, wooden implements, baskets, fabrics, and other items. They, like the early historic settlers, also used the river as a transportation corridor. As Europeans and Africans began to settle the county in the late seventeenth century, they chose locations close to Charles Town, but very quickly moved up the Cooper River drainage. The main house at Middleburg Plantation on the East Branch of Cooper River dates to 1699 and is the oldest standing wooden house in South Carolina. In Wadboo Barony at the upper reaches of the Cooper River drainage the area began to be well settled by the first quarter of the eighteenth century. Early on in South Carolina's history, the Cooper River drainage was a significant area in the state's social and economic development. Recently, the proposed Cooper River National Register District was officially listed on the National Register of Historic Places. This listing boldly underlines the importance of the area to the history of the state of South Carolina. Approximately one third of the district will soon be owned by the South Carolina Department of Natural Resources and The Conservation Fund. As of March 30th, 2004 they purchased 7,315 acres and will acquire a total of 10,697 acres by late 2004 or early 2005 as a natural and cultural preserve. This property is located between Mepkin Abbey and SC Highway 402 at the confluence of the Cooper River and its eastern branch and encompasses several historic plantations: Comingtee, Bonneau Ferry, Fish Pond, the Villa, the Hut, a portion of Childsbury Town and Mepkin Plantation. Once SCDNR develops a public use and wildlife management plan, the property will be opened to the public within six months (Wise 2004). Until a management plan is created, it is unclear what level of protection the cultural resources within this property will receive.

Cultural resources that are listed on the National Register of Historic Places receive some protection through the County's Special Area Permit process for major subdivisions or Planned Neighborhood development, with exemptions for single-family homes and mobile homes. There are other cultural resources that are important but may not have the same visibility in planning/zoning activities. This Cultural Resource Management Plan (CRMP) will be used to assist Berkeley County government and the Town of Moncks Corner in making management decisions affecting locally important cultural resources. The goal of the CRMP is to ensure cultural resources are adequately considered during the planning and zoning process at the local government level. In order to accomplish this goal, the CRMP brings together in one place everything that is known about the cultural resources of the study area and assesses any known current and future threats.

The CRMP makes recommendations for managing threats for the significant resources (those listed, eligible, or potentially eligible for the National Register of Historic Places). It also provides some discussion of how threatened sites could be preserved in place through green spacing using conservation easements, adaptive reuse of structures, etc.. Also provided are recommendations for educating citizens and business

Figure 1
Map of Cooper River Study Area



Source: USGS Quadrangles; Monck Corner, SC., 1958 (PR 1979); Cordesville, SC., 1948 (PR 1979), Bethera, SC., 1948; Mt. Holy, SC., 1957 (PR 1979); Kitteridge, SC., 1950 (PR 1979); Huger, SC., 1950 (PR 1971); Ladson, SC., 1958 (PR 1979); North Charleston, SC., 1958 (PR 1979); Cainhoy, SC., 1958 (PR 1971).

owners about currently existing tax incentives for historic preservation and determining the feasibility of creating incentives at the local level. It also discusses how to help bring greater visibility to historic resources and further foster civic pride.

II. ENVIRONMENTAL CONTEXT AND LAND USE

INTRODUCTION

The Cooper River drainage as defined in this study is roughly bounded by SC Hwy 41 to the east, SC Hwy 402 to the north, US Hwy 52 to the west, and the US Naval Weapons Station to the south. It is situated in the Lower Coastal Plain on the northern boundary of the Sea Island Coastal Region of the South Atlantic Slope. Various studies have defined the geographic range of this region differently to accommodate a diversity of purposes and objectives. In this discussion, the definition provided by Mathews et al. (1980:1) will be used. By this definition, the Sea Islands Region extends over approximately 480 km of coastline from the St. Mary's River to the northern end of Pawley's Island on the central South Carolina coast, and includes the coastal counties of Georgia and South Carolina as well as the bordering counties of Berkeley and Dorchester (South Carolina) and Effingham (Georgia). All definitions of the coastal region incorporate a certain degree of arbitrariness when inland boundaries are considered, but this particular definition includes only minor amounts of inland area and as such is successful in isolating the region from the higher elevations of the Coastal Plain, which represent a distinctively different environment.

PHYSIOGRAPHY AND SOILS

Late Tertiary sea level transgressions and barrier-island formation processes have combined to create the distinctive physiography typical of a modern Sea Island Coastal Region (Mathews et al. 1980). The mainland is comprised of a series of island-beach ridge sequences that, when viewed on the landscape, appear as a series of broad, depositional terraces running sub-parallel to the coastline and extending inland approximately 100 km to the Orangeburg Scarp. The edge of each terrace consists of a discontinuous sand ridge that represents the remains of an earlier barrier island chain, while the clayey sand plain behind each was once back-barrier tidal flat lagoons and marshes (Colquhoun 1969).

Beginning at the base of the Orangeburg Scarp and heading toward the coast, the terraces are the Coharie, Sunderland Okefenokee, Wicomico, Penholoway and Talbot, Pamlico, and Princess Anne. The escarpments are the Orangeburg, Parler, Surry, Dorchester, Summerville, and Betheria. The escarpment forming the present sea level is the Cainhoy (Murphy 1995: 96). Because of their elevated topographical positions, the terraces played significant roles in site locational patterning throughout the history and prehistory of the region (Cable et al. 1991). Locations of both major transportation arteries and settlements closely correspond to this underlying geologic structure. The Pamlico terrace supports US 17 and the towns of McClellanville, Awendaw, and Wando-Cainhoy; the Talbot terrace, which is split into two parallel segments, contains SC 41 and the towns of Honey Hill, Huger, Jamestown, and Betheria; while US 52 and the towns of Alvin, St. Stephen, Bonneau, McBeth, and Moncks Corner rest on the Penholoway terrace (Cable et al. 1991).

Other Pleistocene-age deposits occurring in the Sea Island Coastal Region include fluvial features such as floodplains, point bars, dune sheets, terraces, and Carolina Bays. A typical feature of the major river

valleys is the dune sheet formations, which have been dated to the Late Wisconsin (20,000 to 10,000 years B.P.). These features exhibit a parabolic structure and generally occur as a series of southwest-northeast trending ridges located on the eastern edges of river valleys, suggesting to Thom (1970) that they represent degraded parabolic dunes formed by prevailing westerlies during a period of reduced discharge and geomorphological transition from a braided to a meandering river channel. The outer Coastal Plain segments of the Pee Dee (Thom 1967), Santee (Colquhoun et al 1972), Savannah, and Altamaha rivers all possess this peculiar structure (Mathews et al. 1980). The dune fields typically overlie Pleistocene terrace and floodplain formations in these river valleys. Carolina Bays are shallow, elliptical depressions ranging between approximately 1 and 4 km in length and are believed to have been caused by one of three phenomena: 1) an asteroid bombardment; 2) tidal eddies; or 3) wind deflation in combination with lake wave scouring. Of these, the third theory has the strongest academic support (Murphy 1995: 138-140). These bays were important to the Native American population of the area since they provided easily accessible wetlands resources (see, for instance, Brooks et al. 1996). Up to 50 Carolina Bays are situated in Berkeley County (Murphy 1995: 135).

Holocene-age (the last 10,000 years B.P.) sedimentation and landform development has contributed significantly to the physiographic structure of the modern coastline. Holocene features include the river bottoms, swamps, marshes, beaches, modern dune ridges, tidal flats, tidal deltas, biogenic reefs, estuarine bottoms, and the nearshore shelf. The soils of the Sea Islands and the immediately adjacent mainland are formed on Pleistocene deposits (Hoyt 1968). The mainland soils are the most mature and generally exhibit distinctive horizon development. These soils are sandy to loamy in texture and are moderately to highly acidic (Miller 1971). The Pleistocene soils of the Sea Islands are less diverse and horizon development is less distinct than is typical of the mainland (Johnson et al. 1974; Mathews et al. 1980). Nevertheless, these soils are compositionally and structurally very similar, consisting of highly acidic sands overlying sandy to loamy substrate. Organic staining occurs where soils are saturated for significant periods, but otherwise organic content is slight. The seaward fringes of Sea Islands are composed of younger Holocene sand deposits with very indistinct horizon development. Although some islands classified as barrier islands are Pleistocene in age, most are built up from Holocene sands. Tidal marsh bottoms consist of fine sands, clays, and organic deposits of Holocene age overlying older Pleistocene sands. These sediments contain high concentrations of iron sulfides and reduced organic compounds and are generally neutral to slightly basic.

It is reasonably expected that soil drainage had an impact on the location of prehistoric and historic settlement patterns, as well as cultivation. Away from the river channels, prehistoric settlements in the area are typically found on well-drained soils near the interface with a wetland margin. This would have provided an abundant and rich foraging catchment area. Historic sites are also found on well-drained ridges that provided a transportation artery in and out of the area (Williams et al. 1992b: 129). Along the river channels, prehistoric sites are typically located on well drained high ridges. Historic plantations are on high ground adjacent to deep navigable water (South and Hartley 1981).

CLIMATE

The climate of the region has been described as "humid subtropical" (Critchfield 1974), typified by short, mild winters and hot, humid summers. The ocean moderates temperatures on the coast and as a consequence maximums are lower and minimums are higher than inland locations. Moreover, the growing season is longer, grading from approximately 225 days in the Piedmont to nearly 300 days on the coast

(Carter 1974). On the South Carolina coast, average July temperatures reach 27.2°C, while average January temperatures range between 8.8°C and 10°C (Kovacik and Winberry 1987).

During the early history of South Carolina, the area surrounding Charleston was often viewed as harsh and unhealthy, especially for the white population. Robert Mills stated that,

The numerous swamps, bays, and low grounds which indent the low country, retain the waters that fall in rains; and in consequence of these, occasion thick fogs throughout the night, during the summer months. Under such circumstances it is a matter of little surprise that fevers prevail The two fevers most dreaded here, are, what are commonly termed the country and yellow fever. The first is peculiar to the country, and to avoid it, the planters are in the habit either of residing in Charleston during the sickly season, or retiring to the Sea Islands or Sand hills. The second belongs exclusively to the Town, and is generally fatal to strangers only, who have not, as it is termed, become climatized (Mills 1972: 140-144).

Mills further commented on the perceived evils of the swamp. He explained:

That to the extensive swamps and stagnant pools, which cover its surface, are we not to attribute the cause of our epidemical diseases. The rank luxuriance of vegetation on these waste lands, their perpetual moisture, and the operation of a powerful sun, produce at certain seasons of the year, in a degree indeed extensive, the rapid decomposition of this vegetable matter: the miasma arising from this decomposition contaminates the surrounding air, which afterwards is wafted by the winds over the country, and poisons, more or less, the whole atmosphere (Mills 1972: 462).

Summers are dominated by warm, moist, tropical air masses, and precipitation during this season is generally produced by convection storms. Winter precipitation, by contrast, originates from continental fronts out of the north and west. Spring usually represents the driest season, but rare drought conditions can occur in the fall. The South Carolina sea islands and dune strand receive an average of 1240 mm of precipitation annually, while the Outer Coastal Plain averages 1320 mm. Periods of drought have been noted by historical writers, which caused considerable damage to livestock and crops. Robert Mills noted that the “summer of 1728 was uncommonly hot; the face of the earth was completely parched; the pools of standing water dried up, and the field reduced to the greatest distress” (Mills 1972: 447-448).

Tropical cyclones of hurricane force are the common feature of the Sea Islands Coastal Region (Purvis 1980). Storms of this kind are characterized by counter clockwise wind rotation and originate in the North Atlantic subtropical convergence zone east of the West Indies. The storm tides associated with hurricanes typically raise mean sea level 2 to 6 meters above normal and can result in extensive inland flooding (Myers 1975, Purvis and Landers 1973). Peak hurricane season occurs in late summer and early fall, but the seasonally earliest one to strike the South Carolina coast occurred in May. The coast of South Carolina tends to be affected more by hurricane force winds than the Georgia coast, and Purvis and Landers (1973) estimate that 169 hurricanes have struck South Carolina between 1686 and 1972. Rainfall associated with hurricanes contributes about 15 percent of the annual precipitation along the coast and can result in enormous quantities of rain within a period of only several days.

FLORA

Owing to its transitional stage of emergent coastline development (see Strahler 1977), the Sea Islands Coastal Region supports one of the most complex coastal ecotones in the world. Six quite different ecosystems exist side-by-side as a series of broken zonal belts closely corresponding to the distinctive physiographic structure of the region (Sandifer et al. 1980). The two natural ecosystems of the mainland consist of upland forest communities generally assignable to oak-pine (Braun 1950) and loblolly-shortleaf pine associations, and swamp communities in the poorer drained locations. In general, the upland communities are concentrated on the barrier island facies of the terrace complexes, while the swamp communities occur most heavily on the back barrier lagoon facies and along river bottoms. Freshwater stream environments constitute a third ecosystem. A fourth ecosystem occupies the islands and the coastal fringe or strand of the mainland. Communities of this maritime ecosystem are distinctively zoned and consist of three subsystems including, in successional order, beach dunes, transitional shrub thickets, and maritime forests. Live oak, magnolia, red bay, loblolly pine, wax myrtle, and palmetto comprise the principle dominants and subdominants of the maritime forest. Finally, coastal wetland ecosystems include the shallow marshes of the nearshore shelf and the deeper estuaries positioned at inlets between the marshes and the landward side of the barrier islands.

Robert Mills noted in the early nineteenth century the importance of timber to the area. The loblolly pine was used to produce tar and turpentine, so important to the early economy of South Carolina. The longleaf pine was "much used in building and for all other domestic purposes"; trees such as the red bay and red cedar were often used in furniture making and for posts; and live oaks were recognized as providing "the best of timber for ship building" (Mills 1972: 66-85). He also observed that:

In former years cypress was much used in building, but the difficulty of obtaining it now, compared with the pine, occasions little of it to be cut for sale, except in the shape of shingles; the cypress is a most valuable wood for durability and lightness. Besides the two names we have cedar, poplar, beech, oak, and locust, which are or may be also used in building (Mills 1972: 460).

CURRENT LAND USE

In general, most of the Cooper River drainage area is vegetated with planted pine. However, areas bordering creeks and rivers contain oaks, magnolias, red bay, hickory, and tulip poplar. Understory vegetation consists primarily of flowering dogwood, witch hazel, muscledwood, sassafras, holly, redbud, storax, and spicewood. Swamp lands contain primarily cypress and tupelo, while there are also small quantities of red bay, sweet bay, red maple, boxelder maple, sycamore, cottonwood, and elm. There is little land under cultivation, and only small areas in pasture. Several areas have been developed, particularly between US Hwy 52 and the Cooper River. There are also several areas of industrial development in the Lower West Branch area north of Cainhoj as well as in the vicinity of Coté Bas and Bushy Park.

The East Branch of the Cooper River is primarily rural and wooded. Portions at the southern end just west of SC Hwy 41 are owned by the U.S. Forest Service. Cultural resources within USFS property are inventoried and managed by them. Along Clements Ferry Road there are scattered single family dwellings and businesses. Most of this development occurs near French Quarter Creek in the vicinity of the Charity community. The new Cainhoj Elementary and Middle School is now being constructed in this location.

There are also clusters of structures along the northern and eastern edge associated with the communities of Cordesville, Huger, and Little Joe. At the southern end, Nucor Steel owns what was historically known as Hagan Plantation. The remaining land is privately owned or held by timber companies and consists of large holdings.

The Upper West Branch is also primarily rural and wooded. The U.S. Forest Service owns a small portion along the east edge, just south of Hwy. 402. At the northern end of County Road 44, there are a cluster of residences in the vicinity of Biggin Church. On the west side of Cooper River is the town of Moncks Corner. Development concentrates within the Town limits as well as along County Road 791 north of Lewisfield Plantation. South of Lewisfield, there are a few developments along this road including Pimlico, Wapoola, Oakley, and the Berkeley Country Club and Golf Course. US Hwy 52 is rather sparsely developed, but existing developments concentrate north of County Road 357. Old Santee Canal State Park is located east of Moncks Corner and contains the Berkeley County Museum, an Interpretive Center, and the Stony Landing House. There are also a number of nature trails. Santee Cooper manages this property, as well as property along the Tail Race Canal and portions of the southeastern shoreline of Lake Moultrie. Other portions of the shoreline contain subdivision development. On March 30th, 2004 the South Carolina Department of Natural Resources announced that they, along with the Conservation Fund, had purchased nearly 11,000 acres in the Upper West Branch and extending into the East Branch area. This property is to be used as a wildlife preserve. Until a management plan is formulated for the property, it is unclear how cultural resources will be handled.

The Lower West Branch contains a cluster of residences near the southern end of County Road 791 south of Canterhill Swamp. Cypress Gardens is located on what was historically known as Dean Hall Plantation. The facility contains upland gardens and a number of hiking trails that allow access to the cypress swamps. It has been operated by Berkeley County since 1996. Further south is a narrow peninsula that separates Cooper River from Back River. This peninsula is occupied by Bushy Park which is an industrial facility. On the east side of Cooper River, a large part of the waterfront is owned by Nucor Steel and the BP Corporation and is industrial in nature. The east side of Clements Ferry road contains a few single family residences and a few small businesses. Otherwise the land is in large stands of planted pine.

III. THE CULTURAL CONTEXT

PREHISTORIC CONTEXT

PALEOINDIAN

The Paleoindian Period is commonly dated between 12,000 and 10,000 B.P. (before present). It has been subdivided into three divisions known as "Early", "Middle", and "Late". The Early Paleoindian is consistently represented by the fluted Clovis Lanceolate type, while the Middle and Late Paleoindian reflect the beginnings of accelerated region variation. The Middle period is marked by the appearance of Cumberland, Simpson, Suwannee, and Quad points, while the Late Paleoindian is represented by the nonfluted Hardaway-Dalton and Dalton types.

From what little is known about the Paleoindian Period, archaeologists tend to agree that they were a band level society, were nomadic, and were hunters and foragers. Although the population density was low, it is believed that toward the end of the Paleoindian Period that the population density increased significantly (see Walthall 1980: 30). Many southeastern researchers argue that eastern Paleoindian groups may have based their subsistence economies on the exploitation of extinct big game, given that many sites are located in prime megafaunal habitats (i.e. major river systems) (Gardner 1974; Goodyear et al. 1979; Michie 1977; Williams and Stoltman 1965). As of 1992, 15 Paleoindian points have been reported in Berkeley County, primarily along the Cooper River drainage and Lake Marion. Most of the points were manufactured from Coastal Plain chert (Charles and Michie 1992:33).

There is the possibility for the existence of a pre-Clovis horizon in the New World. Recent work at Monte Verde (Meltzer et al. 1997), past work at Meadowcroft Rockshelter (Adovasio et al. 1977; 1985), and new evidence from Cactus Hill in Virginia is providing ammunition for its existence. The evidence from Cactus Hill indicates the presence of a prismatic blade industry that dates between 15,000 and 16,500 B.P. (McAvoy and McAvoy 1997). Also, work by Albert Goodyear at the Little Pine Tree site on the Savannah River in Allendale County, South Carolina is providing some growing evidence for a pre-Clovis occupation.

ARCHAIC PERIOD

The Archaic Period has been traditionally divided into three divisions — the Early Archaic (10,000 to 8,000 B.P.), the Middle Archaic (8,000 to 5,000 B.P.), and the Late Archaic (5,000 to 3,000 B.P.). Generally, the Archaic is viewed as a lengthy time of adjustment to changing environments brought about by the Holocene warming trend and rising sea level.

Early Archaic projectile point forms include the Hardaway Side-Notched, Palmer Corner-Notched, and Kirk Corner-Notched. Representatives of the terminal Early Archaic bifurcate tradition (Chapman 1975) are also found in some quantities. The Middle Archaic sequence begins with Kirk Serrated and Kirk Stemmed points, which are followed by the closely aligned Stanly Stemmed. These are followed by the Morrow Mountain I and II types and then the Guilford and Brier Creek lanceolate types. Late Archaic points include

the early Savannah River Stemmed and the smaller Otarre Stemmed points. Pottery makes its appearance in the terminal Late Archaic with the fiber-tempered Stallings series and the sand-tempered Thom's Creek series (see Blanton et al. 1986).

During the Early Archaic period, the region became warmer and moister because of the melting continental glaciers, which increased sea levels and precipitation. Oaks were the dominant forest vegetation (Delcourt and Delcourt 1987) and there appear to have been episodes of heavy rainfall (Segovia 1985). This environment led to changes in human adaptations that are visible in the archaeological record. Based on research conducted at two sites in North Carolina's Haw River Valley, Claggett and Cable (1982) proposed that changes in technology from the Paleoindian to the Early Archaic Periods reflect changes in settlement organization in response to post-Pleistocene warming.

Sassaman (1983) suggests that Middle Archaic people were very mobile, perhaps moving residences every few weeks which fits Binford's (1980) definition of a foraging society. Binford proposed that foragers had high levels of residential mobility, moving camps often to take advantage of dispersed, but similar resource patches. He believed that differences in environmental structure could be traced to large-scale climatic factors and further noted that a collector system could arise under any condition that limited the ability of hunter-gatherers to relocate residences. During his work in the Haw River area of North Carolina, Cable (1982) argued that postglacial warming at the end of the Pleistocene led to increased vegetational homogeneity that encouraged foraging. Sassaman's (1983) "Adaptive Flexibility" model suggests that this homogeneity allowed for a high degree of social flexibility, which allowed them to pick up and move when needed. This mobility did not allow them to transport much material, which alleviated the need for elaborate or specialized tools to procure and process resources at locations distant from camp.

The Late Archaic Period has been described as a time of increased settlement permanence, population growth, subsistence intensification, and technological innovation (Smith 1986). The Savannah River Stemmed, small Savannah River Stemmed, and Otarre projectile points characterize the period as well as the technological development of fiber-tempered pottery known as St. Simons and Stallings (Griffin 1943; Stoltman 1974). The first use of freshwater shellfish in the region corresponds with the development of fiber-tempered pottery in the Coastal Plain (about 4,500 B.P.). However, shellfish procurement and pottery use did not occur above the Fall Line until after 3,700 B.P. (and fresh-water shell midden sites are only found in the Savannah River Valley). Piedmont and Fall Line inhabitants used soapstone cooking tools (heating stones, and later, bowls) which explains the late adoption of pottery (Sassaman et al. 1990; Sassaman 1993).

EARLY WOODLAND PERIOD

Although there has been dispute over when exactly the Woodland Period began, some researchers believe it started with the beginning of the production of fiber tempered pottery known as Stallings around 5,000 B.P. (Trinkley 1990a). This culture produced a rich material assemblage of worked bone and antler, polished stone items, net sinkers, steatite heating slabs, stone tools (projectile points, scrapers, knives, and drills), as well as the fiber tempered pottery. Hanson (1982:21) and Smith (1974:306-311) have argued that the stimulus for the elaborate material culture may be related to a combination of population increase and environmental disequilibrium. Binford (1978) has argued a similar hypothesis regarding population stress as a factor for new forms of food procurement. Hanson (1982:13) notes that mussel availability by 2,500 B.C. had increased because of sea level changes, river gradient, and channel location. However,

more recent research by Brooks et al. (1989) has found that mussel availability actually may have begun to decrease in the Savannah River drainage by this time.

The pottery is recognized by its large quantity of Spanish moss fiber (Simpkins and Scoville 1981) which was included in the paste before it was fired. Vessel forms include shallow bowls, large wide-mouth bowls, and jar forms. The pottery was built through molding, although coil fractures are sometimes present, particularly later in the period. Firing was not well controlled and was incompletely oxidized. Decorations include punctations (with periwinkle shells, reeds, and sticks), finger pinching, and incising. Some of these motifs are believed to be temporally sensitive (Trinkley 1986; 1990a; Sassaman 1993).

The Savannah River drainage was the focus of Stallings Phase occupations (Clafin 1931; Hanson 1982; Sassaman 1993) as well as in the coastal zone area south of Charleston (Anderson 1975). However, more recent work has identified the pottery up into the Tar River drainage in North Carolina (Phelps 1983:27-28). Several large Stallings sites have been examined in South Carolina including Fennel Hill, Fig Island, Stallings Island, Rabbit Mount, and Bilbo. They all contained large quantities of artifacts, shell middens, and abundant features. These sites, however, represent only one aspect of the Stallings Island settlement system. Sites such as Love and Fish Haul have produced little shell, but had abundant features, while others such as Clear Mount and Pinckney Island were only sparse scatters. Trinkley (1990a:8) believes that such sites may be early when the subsistence base was diffuse. Another suggestion was that they might represent a seasonal round in the Stallings settlement system.

With respect to cultural developments, Stallings appears to represent an elaboration of regional Late Archaic cultures. Settlement/subsistence strategies of this period appear to reflect seasonal rounds with a focus on riverine and estuarine resources during the fall and winter, while inland resources were exploited in the late winter and spring (Trinkley 1990a: 7-8). The Fish Haul Site (38BU805) is an example of a possible Stallings Phase winter-spring camp. Excavations here indicated the use of diverse animal species, deer and fish being the most prevalent, and intensive collection, processing, and consumption of hickory nuts (Trinkley 1986).

Although Stallings is considered to be older and the progenitor of the Thom's Creek pottery, some radiocarbon dates suggest that the two types are largely contemporaneous (Trinkley 1980b). Thom's Creek dates as early as 2,220 ±350 B.C. from the Spanish Mount site in Charleston County (Sutherland 1974) and continues as late as 935±175 B.C. from Lighthouse Point Shell Ring, also in Charleston County. The artifact assemblage characteristic of the Thom's Creek phase is almost identical to that found in Stallings. The pottery, however, is tempered with sand rather than Spanish moss fibers. Some of the potteries are untempered. The motifs are almost all identical to those found in the Stallings series (Griffin 1945) including punctations (reed and shell), finger pinching, simple stamping, incising, and finger smoothing (Trinkley 1980b).

Stratigraphic analyses of the ceramics from Spanish Mount and Fig Island, as well as studies from other sites suggest a temporal ordering in the Thom's Creek series. Reed punctated pottery appears to be the oldest, followed by shell punctated and finger pinched motifs. Later on, there appears to be the addition of finger smoothed (Trinkley 1983: 44). Sassaman (1993) has offered a somewhat similar analysis of Stallings wares. Based on a series of attributes he defined three phases:

Phase I spans the interval 4500-3800 B.P. (2550-1850 B.C.), and is characterized in the early centuries by plain pottery with thickened or flanged lips, and by plain and decorated

vessels in the later centuries. Phase II, spanning 4800 to 3400 B.P. (1850-1450 B.C.) marks the period of abundant and elaborate decoration of pottery. Phase III encompasses all fiber-tempered pottery assemblages post-dating 3400 B.P. (1450 B.C.), and is characterized by a high degree of interassemblage variability (Sassaman 1993).

Neither Sassaman's (1993) nor Trinkley's (1983) temporal ordering seemed to work well at the Bass Pond site on Kiawah Island (Adams and Trinkley 1993). The site yielded an early radiocarbon date of 2090 B.C., firmly placing it in Sassaman's Phase I period. Yet, after removing the plain wares, the sherds were dominated by finger pinching which Trinkley (1983) suggests is a later variety. The radiocarbon dating material was taken from what was believed to be an uncontaminated context and, therefore, it is thought to be reliable. Adams and Trinkley (1993:175) concluded that it is possible that previous work has oversimplified what could be a much more complex chronology. Half of Trinkley's (1980a) sites were surface collected, making it possible that there were problems with the seriations.

Projectile points from this time period are typically Savannah River Stemmed (Coe 1964). They reduced in size later on during the Thom's Creek phase and are classified as Small Savannah River Stemmed (Oliver 1981). Anderson and Joseph (1988:197) note that there appears to be a "long co-occurrence of both large and small forms", suggesting that one type did not replace the other.

Most of the work on Thom's Creek phase sites has been conducted at shell rings (see Trinkley 1980a; 1985; Lawrence 1989). These sites range in size, but are generally about 100 to 300 feet in diameter, 2 to 6 feet high, with a 40 feet wide base and a clear interior. In essence, they are doughnut shaped. Although their functions have not been fully understood, in the past it was believed that they were occupation sites for fairly large groups who lived on top of the ring and used the clear central area for communal activities. These sites suggest that village life was relatively stable and permanent as early as 1600 B.C.. Subsistence focused on mammals, fish, shellfish, and hickory nut resources (Trinkley 1985). Recent work by Saunders (2003) at the Fig Island shell ring has disputed this interpretation. She found little evidence for living surfaces on top of the rings and suggests that these sites a combination of egalitarian villages and ceremonial sites, perhaps seasonally occupied during the summer months with feasting being a primary activity at the site.

Other work at Thom's Creek sites includes work by Sutherland (1973, 1974) at the Spanish Mount shell midden which appears to represent a seasonally occupied camp with a diffuse subsistence base. The work at Bass Pond by Michie (1979) and Adams and Trinkley (1993) suggest a similar subsistence orientation. Work at Minim Island and 38BU2 provided results similar to those at Bass Pond (Espenshade et al. 1994). Testing at a non-midden site on Sol Legare Island was conducted in 1984 by Trinkley. Most of the faunal remains were from large mammals. The work also identified a portion of a probable post structure.

Refuge (3000-2600 B.P.) and Deptford (2800-1500 B.P.) potteries follow the Stallings and Thom's Creek wares. The Refuge series is characterized by a compact, sandy or gritty paste and a sloppy simple stamped, dentate stamped, or random punctated decoration (Williams 1968). They are very similar to the preceding Thom's Creek wares and Anderson et al. (1982:265) note that the typologies are "marred by a lack of reference to the Thom's Creek series" and that the Punctate and Incised types are indistinguishable from Thom's Creek (Trinkley 1990a:11).

Lepionka et al. (1983) investigated a large Refuge shell midden at 38JA61 in Jasper County. While these large middens occur, there was a significant change in settlement pattern and subsistence. By the end of

the Thom's Creek period small non-shell midden sites are found which continues into the Refuge phase (see, for example, Peterson 1971:164-168). This settlement fragmentation probably is related to an increase in sea level (Colquhoun et al. 1980; Brooks et al. 1989) which drowned the tidal marshes and sites that the Thom's Creek people relied on. This stress on the subsistence base may have resulted in an expansion of the settlement system into various environmental settings (Hanson 1982:21-23). Sassaman et al. (1990) believe that the development of mature, upland tributaries was also essential to this process.

Deptford potteries, which begin to occur in the latter part of the Early Woodland, are characterized by a fine to coarse sandy paste with surface treatments including Plain, Check Stamped, Simple Stamped, Cord Marked, Geometric Stamped, and Complicated Stamped (Williams 1968). Shell tools are uncommon and bone tools are very rare. This has led some researchers (Milanich and Fairbanks 1980: 75) to conclude that "wood must have been worked into a variety of tool types". A small stemmed point tentatively described as "Deptford Stemmed" (Trinkley 1980c: 20-23) has been found associated with these sites. It appears to be a culmination of the Savannah River Stemmed reduction seen earlier on. Points similar to Yadkin Triangular points have also been found at Deptford sites (Coe 1964; Milanich and Fairbanks 1980). Sassaman et al. (1990) report that, in the Savannah River Valley, triangular types appear to be more strongly associated with Deptford than stemmed types.

It has also been noted that there is a co-occurrence of the larger triangular Yadkin and Badin type points with smaller triangular forms such as Caraway which has traditionally been attributed to the Late Woodland and Mississippian Periods (Blanton et al. 1986:107); Sassaman et al. 1990; Trinkley 1990a). Blanton et al. (1986) believe that these point types may have been used at the same time for different purposes.

Site 38LX5 situated in Lexington County in the Fall Line zone has provided the earliest radiocarbon date for the Deptford Period — 1045±110 B.C. (Anderson 1975). A site on St. Simons Island in Georgia has produced the latest date of A.D. 935±70. Anderson et al. (1982) have suggested a date range of about 800 B.C. to A.D. 500.

In coastal Georgia, Milanich and Fairbanks (1980:70-73) suggest that the settlement pattern consists of coastal zone and coastal plain sites. The coastal zone sites are located adjacent to tidal creek marshes and have evidence for a diffuse subsistence system. The inland sites are also small, lack shell, and are located on the edge of swamp terraces. South Carolina sites appear to be similar, although there are Deptford shell middens, which exhibit a very focused subsistence emphasis (Trinkley 1990b). Sites such as Pinckney Island and Minum Island consist of large Coastal Zone Deptford occupations, while sites such as 38BU747 (Trinkley 1990b) consist of only small, focal shell midden occupations. Also, site 38BK984 (Roberts and Caballero 1988) provided evidence of non-shell midden Deptford occupations on the Coastal Plain.

Inland sites on the Fall Line and Coastal Plain consist of 38AK228-W, 38LX5, 38RD60, and 38BM40 (Anderson 1979; Ryan 1972; Trinkley 1978; 1980c). The sites are associated with swamp terrace edges, which is productive in nut masts and also large mammals such as deer. The Lewis-West site (38AK228-W) has probably the best data on Deptford "base camps" where there is evidence for abundant food remains, storage pits, elaborate material culture, mortuary behavior, and craft specialization (Sassaman et al. 1990).

At Pinckney Island and Minum Island the majority of calories came from shellfish while mammals were somewhat insignificant (Trinkley 1981b: 57-60; Drucker and Jackson 1984; Espenshade and Brockington

1989). At Minim Island, there was also a strong reliance on fishing in the late spring and summer, while in the fall they appear to be involved in oyster gathering and exploiting nearby nut masts. Work at 38BU2 on Spring Island yielded similar subsistence information for the Deptford phase as has been found at other sites which Espenshade et al. (1994) have called "oystering stations". Sites such as 38BU833 (Trinkley et al. 1992a), the Colleton River sites (Kennedy and Espenshade 1992), 38BU1270 (Kennedy and Espenshade 1991), 38BU747 (Trinkley 1990b), and 38BU464, 38BU1214, and 38BU1262 (Trinkley 1991).

MIDDLE WOODLAND

The Deptford Period continues on into the Middle Woodland Period. However, the Deptford phase is still part of an early carved paddle stamped tradition which is believed to have been replaced by a northern intrusion of wrapped paddle stamping (Trinkley 1990a).

In South Carolina, the Middle Woodland is characterized by a pattern of settlement mobility and short-term occupation. It is characterized by the Wilmington phase on the southern coast and the Hanover, McClellanville/Santee, and Mount Pleasant assemblages on the northern coast.

McClellanville (Trinkley 1981a) and Santee (Anderson et al. 1982:302-308) wares are characterized by a fine to medium sandy paste with a surface treatment primarily of V shaped simple stamping. Although the two potteries are very similar, the Santee series may have later features, such as excurvate rims and interior rim stamping which the McClellanville Series pottery does not exhibit. Both of these types concentrate on the north central coast of the state (Trinkley 1990a: 18).

Wilmington and Hanover are actually believed to be regional varieties of the same ceramic tradition. It is characterized by crushed sherd or grog tempering which makes up 30 to 40 percent of the paste and ranges from 3 to 10 mm in size. Caldwell and Waring (Williams 1968:113-116) first described the Wilmington wares from sites examined in coastal Georgia. South (1959) described Hanover from his survey of the southeastern coast of North Carolina and portions of the northeastern coast of South Carolina. Waring (Williams 1968:221) sees the Wilmington wares as intrusive from the Carolina coast, but the pottery has some Deptford traits. Caldwell and McCann (1941:n.p.) observed that, "the Wilmington complex proper contains all the main kinds of decoration which occurs in the Deptford complex with the probably exception of Deptford Linear Checkstamped" (see also, Anderson et al. 1982:275). Therefore, cord marking, check stamping, simple stamping, and fabric impressing are found with sherd tempered potteries. Radiocarbon dates for Wilmington and Hanover phase sites range from 135±85 B.C. from site 38BK134 to A.D. 1120±100 from a Wilmington house at the Charles Town landing site (38CH1). Dates seems to cluster, however, from about A.D. 400 to 900 (Trinkley 1990a: 18).

Another cultural trait of the Wilmington phase was the introduction of sand burial mounds. These have been found in coastal North Carolina and in areas along the southern South Carolina coast, leaving somewhat of a "gap" in the central area between the two states. Some of the mounds that have been associated with the Middle Woodland have been questioned, particularly in the Savannah River Valley where the assemblages are often dominated by later Irene and Savannah wares. A mound on nearby Callawassie Island is one such mound, which was apparently constructed with refuse from an adjacent St. Catherines village (Brooks et al. 1982). Therefore, it is still not clear if the mounds developed during the Wilmington phase or if they developed afterwards (Kennedy and Espenshade 1992).

Marine shell middens that extend along the tidal marshes characterize most Wilmington sites. On Wilmington Island there are several sites which merged to form a ridge of shell extending nearly three miles along the shore (Caldwell and McCann 1941).

Regarding settlement patterning, Michie (1980:80) correlates rising sea levels with the extension of Middle Woodland shell middens further up the Port Royal estuary. Along the Wando River, Brooks and Scurry (1980:75-78) found that site location was not only affected by sea level fluctuations, but also by soil type. They believe the soil correlation is due to upland sites having functioned as extraction areas, primarily for acorns, hickory nuts, and deer. Wilmington sites along the coast have, by some, been seen as seasonal exploitation areas for gathering oysters. However, if these sites are seasonally occupied locations, then it assumes that people moved to and from the coast on a yearly basis. Sassaman et al. (1990:317) believe that the population expansion and pressure experienced during the Woodland Period in the Middle Savannah River Valley would reduce the mobility necessary to support a seasonal movement of Wilmington people. Generally speaking, Wilmington sites have been interpreted as representing fall/winter seasonal camps (Trinkley 1974; 1990a).

Kennedy and Espenshade note that if Wilmington people were visiting the coast during a certain season to exploit the oyster beds, then we should find corresponding sites somewhere else to compensate for the remaining portion of the year. However, we have not yet found any of these corresponding sites (Kennedy and Espenshade 1992).

LATE WOODLAND

Essentially, the Late Woodland is a continuation of previous Middle Woodland assemblages. In Francis Marion National Forest, the Late Woodland is characterized by a continuation of the Santee pottery series. The Hanover and Mount Pleasant pottery series are also found as late as A.D. 1000 (Trinkley 1989). Cable (2001:15) indicates that Wilmington and Cape Fear Fabric Impressed dominate during this period as well. Unfortunately, this period is difficult to delineate from the preceding Middle Woodland period or subsequent Mississippian period (Sassaman et al. 1990:14). Sites with Late Woodland or Mississippian occupations tend to contain small, triangular points such as the Caraway or Pee Dee (Coe 1964).

Stoltman (1974) observed in the Middle Coastal Plain that Late Woodland sites have a settlement pattern characterized by dispersed upland settlement, which he believes, may indicate the beginnings of slash and burn agriculture or intensification of upland resource procurement. In the coastal area, sites are also numerous, small and dispersed which suggests a decrease in settlement integration over the Middle Woodland period. Contrasting this pattern, Piedmont sites are few and are dispersed along tributaries with little if any interriverine occupation (Goodyear et al. 1979; Taylor and Smith 1978).

The Woodland period sequence for Francis Marion National Forest is currently poorly understood. The current model in use was supplied by Anderson's (1982) work at Mattassee Lake.

MISSISSIPPIAN PERIOD

The Mississippian Period (A.D. 1100 to 1640) is characterized by a sedentary village life, agricultural food production, and regionally integrated and hierarchically organized social, political, and ceremonial systems (Anderson 1990). Not much is known about the Mississippian Period in this area of the state. Most of the work has been done in the middle Savannah River Valley or along the Wateree River Valley in the central part of the state. It is possible that Mississippian occupations are aligned with the Scott's Lake

Mound Center on the Upper Santee River as well as the Wateree Mound Complex near Camden. Anderson's (1982) ceramic sequence is based on data supplied by local collectors, Coe's (1995) work at Town Creek in North Carolina, and excavations conducted by Stanley South (1971) at Charlestowne Landing. Anderson's phases include Santee II, which is dominated by Santee Simple Stamped, Jeremy, and Pee Dee. Ultimately, DePratter and Judge's (1986) sequence for the Wateree mound complex may demonstrate to most effectively describe the local sequence (Cable 1991: 15).

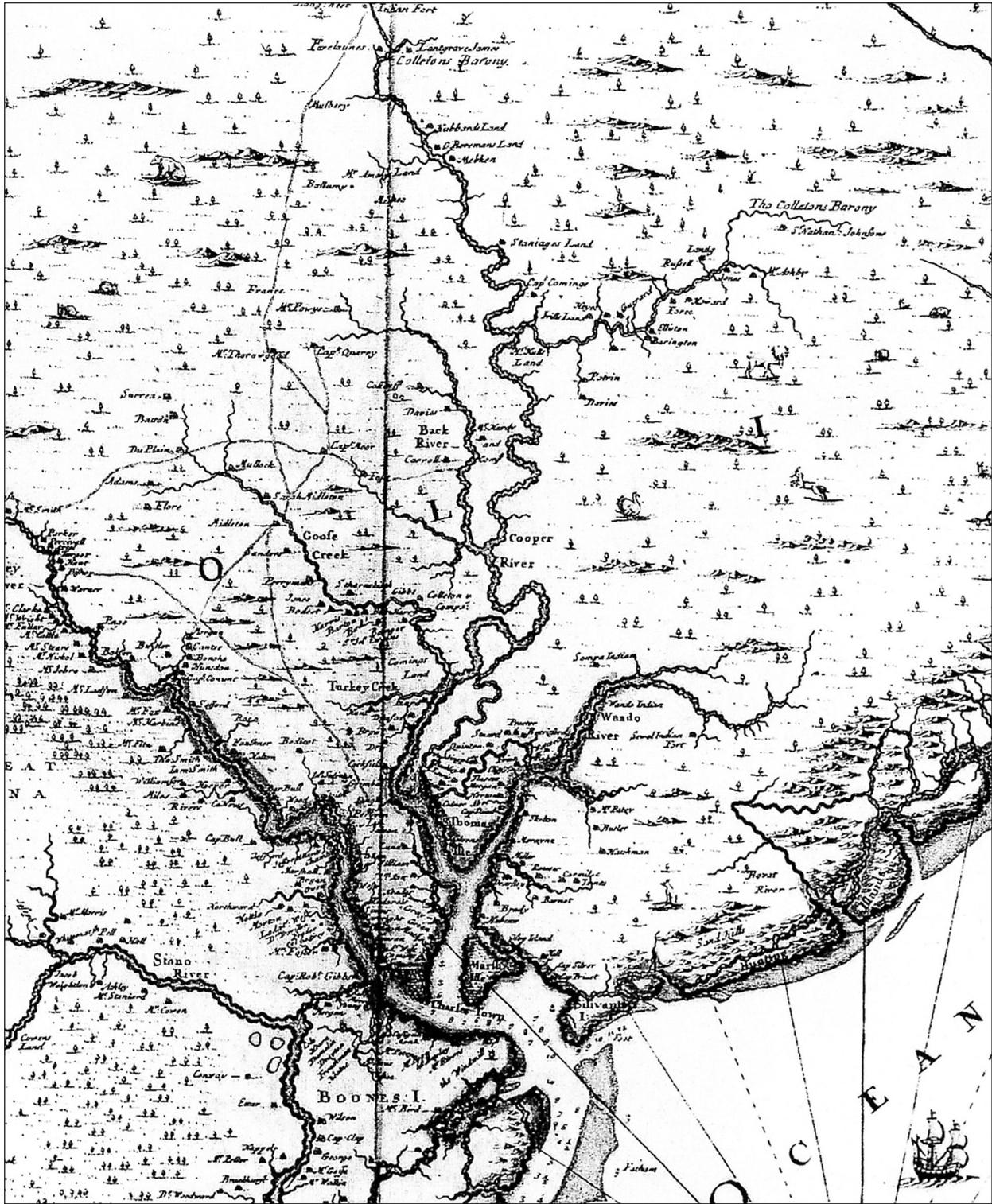
PROTOHISTORIC PERIOD

The Seewee, Wando, Etiwan, and Sampa resided in villages located in the Charleston Harbor area. The Seewee Indians are known to have occupied the area of Francis Marion National Forest from Bull's Bay to the Santee River and as far inland as St. Stephen and Moncks Corner (Swanton 1946: 182-183). By the time Lawson visited them in 1701, their numbers had been severely reduced by small pox. The Thornton-Morden map ca. 1695 (Figure 2) shows the location of "Sewel Indian Fort" south of the Wando near Toomer Creek. Other Indian settlements shown on this map in the Berkeley County vicinity are attributed to the Sampa and the Wando. Just prior to the Yamassee War of 1715 the Seewee were credited with living in a single village 60 miles northeast of Charles Town. This village was comprised of 57 individuals (Waddell 1980: 296-297). Waddell believes the distance was measured by the route taken to get to the village, rather than as the crow flies; therefore putting the settlement south of the Santee River near the French settlements (see Cable 2001).

Ethnohistoric accounts of aboriginal land use patterns indicate a range of potential settlement strategies. Waddell's (1980: 37-50) interpretation of the Jesuit, and later English, accounts of the Edisto and Seewee Indians of the central South Carolina coast would suggest that these groups dispersed into the interior in small family units for significant portions of the year and exploited the upland forest communities and swamps from a series of temporary residences. Juan Rogel, the Jesuit monk upon whose observations Waddell depended heavily, observed that the Edisto village of Orista was comprised of some twenty households during the agricultural season, but after the fall harvest these households divided into "twelve or thirteen different villages" and dispersed inland to collect nuts and hunt game. Rogel indicated that this dispersed phase of the settlement system encompassed about three-quarters of the yearly cycle, ending only with the planting season. Grant Jones (1978: 191-198), by contrast, has argued that the seemingly high residential mobility described by the Jesuits may have resulted from a contemporary adaptive response to avoid the Spanish rather than a long-lived pattern of coastal sea island settlement and that the pre-contact pattern was probably much more stable and sedentary. This pre-contact pattern, according to Jones, was probably one of dispersed agricultural towns or "plantations" that were occupied on a permanent basis. Moreover, a review of the pertinent ethnohistoric accounts from other periods of historic contact failed to establish that groups actually relocated their habitations to the interior to conduct fall nut harvests and game hunting, and further led him to conclude that such activities could have just as feasibly been implemented by logistical forays comprised of specialized task groups originating from towns situated along the coast and major rivers.

Archaeologically, nothing is known about the protohistoric occupation of the Cooper River area. Pottery examined thus far appears to have been made no later than the fifteenth century. It is possible that some protohistoric potteries are similar to those associated with the Woodland Period and, therefore, the sites have not been recognized. Clearly, there is much left to understand about the pottery sequence along the Cooper River.

Figure 2
Thorton-Morden Map Circa 1695 showing the
locations of Historic Indian Groups and European Settlers



HISTORIC OVERVIEW

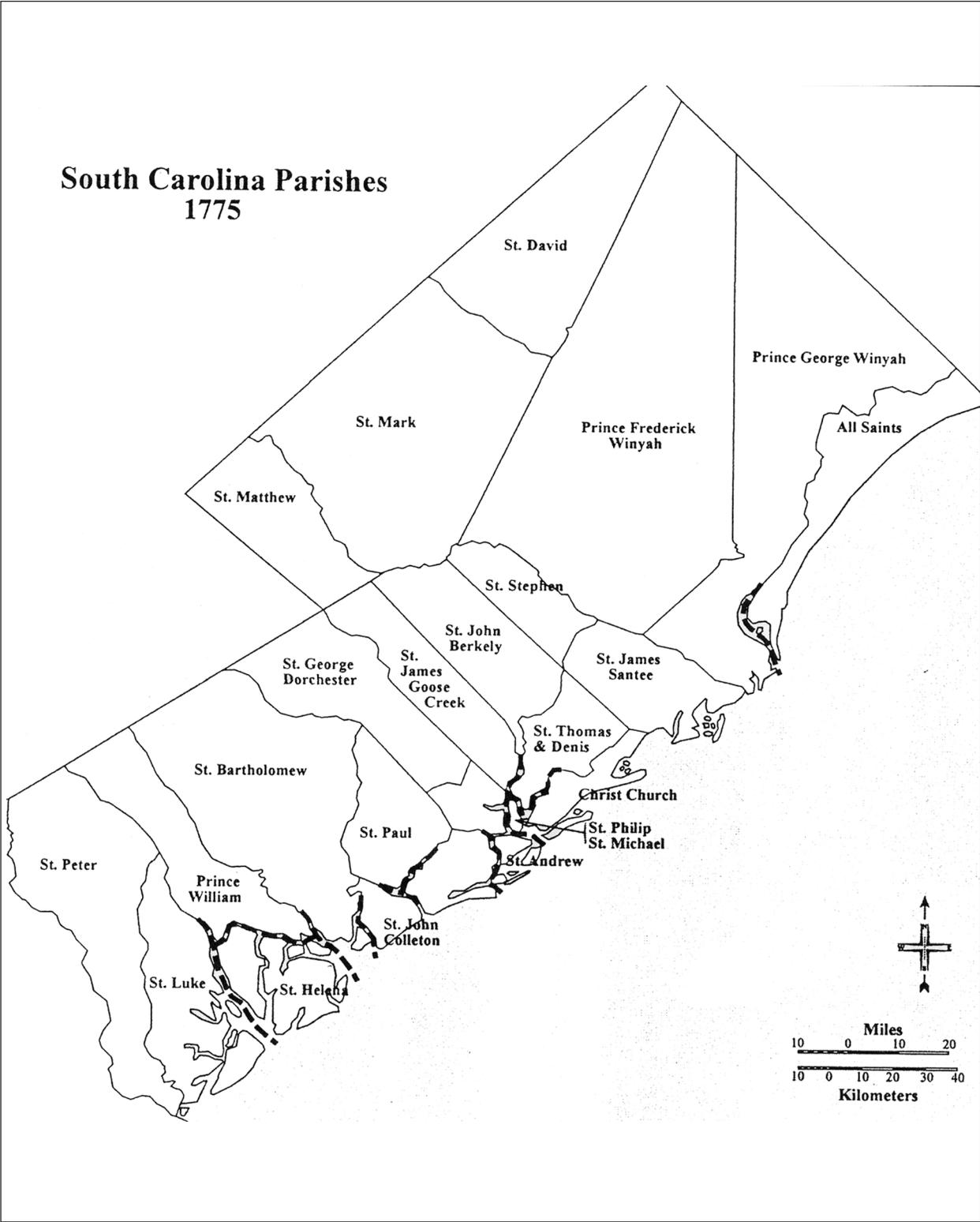
The European settlement of Berkeley County and the subsequent history of the study area is tied to the successes and failures of Charleston and the Lowcountry's plantation economy. Settlement of the region was first advanced under the Lord Proprietors, several of whom were also engaged in the Barbadian plantation system and the African slave trade. Hence colonial South Carolina was a product of the plantation from the onset, and was frequently regarded as the northernmost outpost of the Caribbean. The social system envisioned by the Lord Proprietors was one that meshed plantation dynamics with English nobility. While this system was never implemented as rigidly as the Proprietor's "Grand Model" proposed, the combination of slavery and the English class system influenced and structured the social dynamics of the Carolinas in the early colonial period.

As a major port of southern Carolina, Charleston quickly ascended to a position of political, religious, and social dominance within the region. The Indian trade drove the early export economy. Approximately 64,000 deerskins were exported annually to England at the end of the seventeenth century (Edgar 1998: 136). Families who were more residents of the Town than of the outlying plantations that created their fortunes planted the hinterlands of early Charleston. The 1695 Thornton-Morden map shows Goose Creek and the lowest portion of Cooper River heavily occupied by that time (see Figure 2). Cooper River north of the mouth of Goose Creek contained a relative handful of settlements. Overseers took the place of absentee landlords in the management of many of the early plantations. The labor pool early on was composed of both Native American and African-American slaves. As the eighteenth century progressed, Africans became the primary source of labor. The increase in their population caused a visitor in 1737 to remark that "Carolina looks more like a negro country than a country settled by white people" (in Wood 1974: 132-133). The slave population of Carolina increased from 1,500 individuals in 1670 to 4,100 in 1710 to 20,000 in 1730 (Weir 1983: 145), and Carolina obtained a black majority by the early 1700s (Wood 1974: 149). This exponential growth ended in 1741 when a prohibitive duty on new slave imports was levied after the Stono Rebellion.

While Charleston acted as the hub of settlement within the Lowcountry, settlement also spread into the surrounding hinterland as the plantation economy expanded outward and solidified. With the end of the Indian trade and the beginning of rice production, the inland waterways became the chief method of conveying rice to the market to be shipped to Europe. Rogers (1989: 9) notes that colonial land polices were created in the 1700s which were conducive to the formation of plantations. First, the crown decided to honor patents for landgraves and cassiques (orders of nobility) in the 1730s. This translated into large tracts called baronies being placed in the hands of single individuals. The headright system was also used to promote plantation growth. A headright of fifty acres was allotted for each slave brought into the colony. Those individuals able to purchase large numbers of slaves were thus rewarded with land acquisitions.

St. James Santee, St. Andrews, Christ Church, St. Thomas and St. Denis, St. John's Berkeley, St. James Goose Creek, St. Paul's, and St. Bartholomew's parishes were all established in 1706. With the exception of St. Johns Berkeley, all of these parishes were situated along the coast to Charleston's north and south, while St. John's Berkeley was established along the Cooper River inland from Charleston. The Cooper River drainage incorporates territory from St. Stephen, St. James Santee, St. James Goose Creek, St. John's Berkeley, and St. Thomas and St. Denis Parishes (Figure 3). This riverine settlement distribution was predicated on the plantation system, and in particular, on rice agriculture. Once the crops reached

Figure 3
South Carolina Parishes in 1775 (in Edgar 1998)



Charleston, the powerful merchants took command preparing their passage to the market. Rogers (1989: 12) states that the influence of Charleston's merchant oligarchy was even felt in the outlying parishes. Cainhoy, Moncks Corner, Childsbury and other satellite communities had country stores established and operated by the Charleston merchants. Many of these communities would not survive into the nineteenth century once riverine travel declined in importance.

Early exports from Carolina included deerskins, naval stores (primarily tar and pitch) and subsistence crops such as corn, peas, and meat. By the 1690s Carolina had begun to supplement these exports with two cash crops: rice and indigo. Rice agriculture experienced an experimental phase prior to the introduction of a Madagascar seed strain then flourished dramatically. One expert estimates that the land cleared and planted in rice in 1730 was equal to all of that land cultivated in the preceding 40 years, and after 1720, rice agriculture became the staple of South Carolina's plantation economy (Weir 1983: 145). Rice was supplemented by indigo, as well as by a variety of plantation industries focused on supplying Charleston's active construction trade. Once source identified brickmaking as a profitable second product to rice (Irving 1969: 11), and brick kilns became features on many of the larger Lowcountry plantations. Brick kilns/plantations were mainly distributed along the Cooper, Wando, and Back Rivers to the east of Charleston, as well as along the Ashley and Stono Rivers to the west. Another industry of the early Carolinians was livestock raising. Anderson and Logan (1981: 39) suggest as this particular industry was carried out in a separate ecological niche from rice agriculture, it was compatible to the growth of the major cash crop.

The naval stores industry, and later the timber industry, provides a long-lived corollary to the plantations with the social economy of the region. The production of commodities such as tar, pitch, turpentine, and rosin from longleaf pine for the construction and maintenance of ships was a critical industry of Colonial and nineteenth century South Carolina. Adams (2002) has recently provided a description of the yearly work schedule, living and social conditions of Carolina slaves working in the naval stores industry. While the sap was running during warm weather, small groups of typically male slaves often lived in isolated camps in the stand of trees they were working. Housing usually consisted of small temporary buildings and provisions were brought in from the main settlement. Slaves working in naval stores often supplemented their provisions by trapping and fishing. Sites associated with these camps tend to be small and rather ephemeral.

Naval stores production peaked in the late nineteenth century, but had virtually disappeared by the 1920s with the advent of steam and diesel vessels (Harmon and Snedeker 1997). Tar kilns are only one among various physical components that may have survived this industry including gum boxing stands, pitch production basins, distilling sites, overland wagon and railroad transportation networks, and river landing-wharf-dock facilities used exclusively for naval stores shipping (Robinson 1988: 1-3).

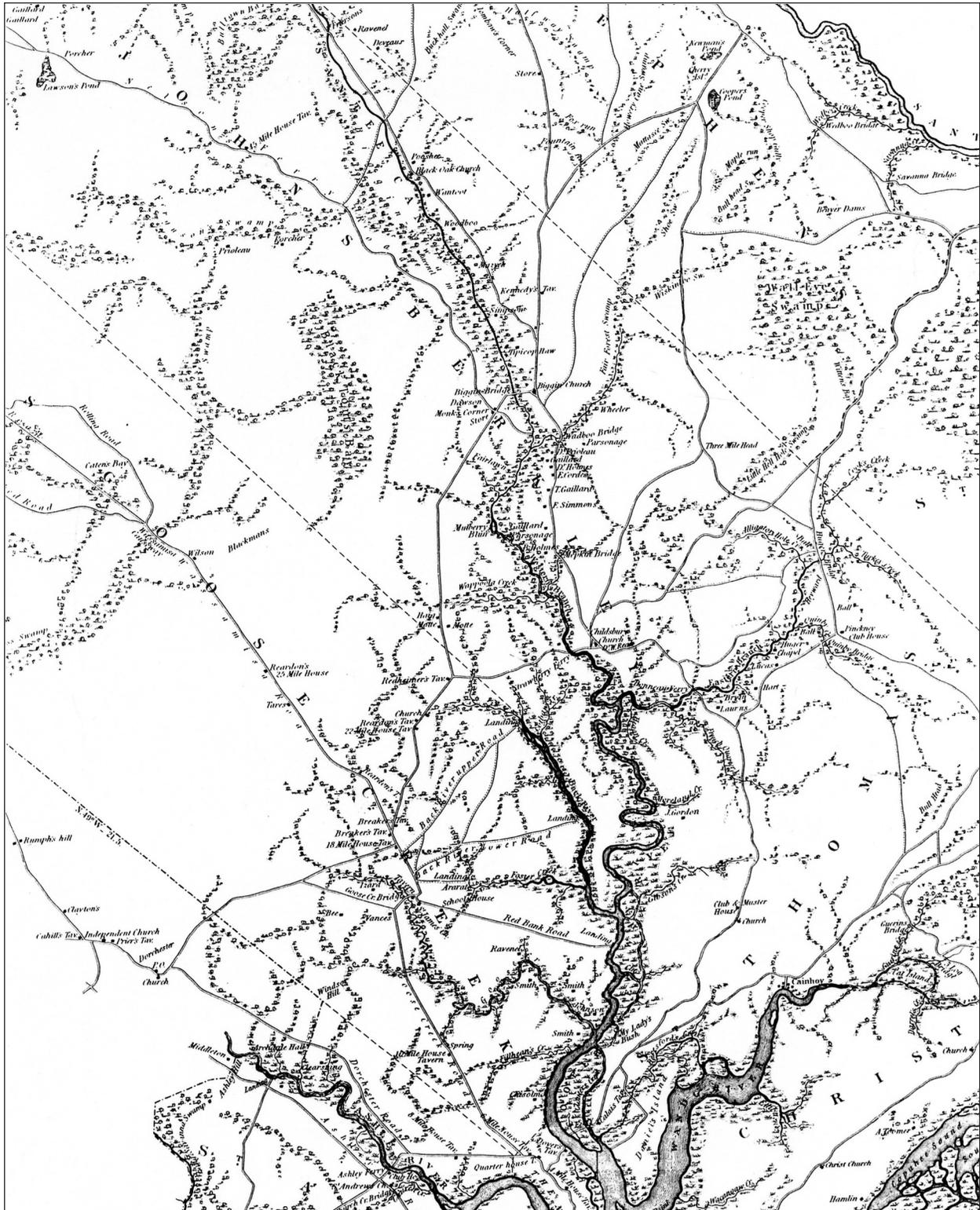
The 1773 Cook map (Figure 4) shows the locations of settlements along the Cooper River drainage prior to the American Revolution. It is clear that the preferred location of settlement was along major waterways. The 1820 map of the area from Mills' Atlas (Figure 5) shows that settlement patterning did not change significantly.

The South Carolina coastal region played an important role in the Revolutionary War and the area east of Charleston gained its current name from the exploits of the American General Francis Marion, nicknamed the "Swamp Fox" and widely recognized as the father of guerrilla warfare. Marion secured his forces within the swampy regions surrounding Charleston, and from there launched attacks on the British,

Figure 4
The 1773 Cook Map



Figure 5
The 1820 Vignoles and Ravenel Map in Mills' 1825 Atlas of South Carolina



effectively disrupting their land based supply lines for much of the war. Following the war, the production of naval stores, rice, and indigo declined in response to the loss of British tariffs supporting the production of these staples. Anderson and Logan (1981: 44) also note that cotton gained favor as a cash crop during this time period, since flooding along the Santee River had ruined several rice harvests and fields. Therefore, planters in St. Stephen's Parish began to experiment with cotton agriculture in the 1790s.

Rice agriculture enjoyed a resurgence with the introduction of tidal rice culture. Tidal rice agriculture used the tidal flow of inland rivers to flood and drain rice fields, and the dikes surrounding these fields protected against flood damage. While tidal rice agriculture was labor-intensive, both during the construction of dikes and ditches and in the care and harvest of rice plants, it engendered a new era in plantation agriculture with fewer and larger plantations established along major rivers. The requisite of tidal flow compelled planters to establish their operations at a distance of less than 15 to 18 miles from the coast (Hilliard 1975: 57).

Reverend Abiel Abbott of Massachusetts made several trips to South Carolina in the 1810s and 20s for health reasons. During his times there, he visited a number of friends living in Goose Creek and along the Cooper River. This included visiting the Izard family in 1818 who were living at The Elms Plantation, the Ropers who were living at Point Comfort on the West Branch in 1828, and the Smiths at Broom Hall (Moore 1967a and b). What is particularly interesting about Abbott's diary entries are the insights he provides on the personalities of his friends, the comments on the architecture of the plantation houses, and the vivid descriptions of the surrounding landscape.

Edmund Ruffin traveled through the Berkeley County area in 1843 as an agricultural and geological surveyor. His diary also provides much information about the antebellum landscape and culture. During his travels he visited Dr. Edmund Ravenel on a creek of the Cooper River, Eutaw Plantation in the Wadboo Barony, and other locations in the Cooper River drainage looking for good sources of marl for use as fertilizer. At that time, much of the soil in the southern states was exhausted and agricultural practices were in much need of reform. He notes "Our journey extended through the several parishes of [ER]. Goose Creek parish especially, which is now as much a scene of desolation as any, formerly furnished residences & plantations for many of the most wealthy planters. We passed two abodes of former magnificence as well as wealth One of these places was the property & residence of one of the Middleton family. . . . The other place is Spring Grove. . . . Now it has neither resident proprietor nor cultivator. It was bought not long since at \$3,000, & is held as a resource for timber for another place" (Mathew 1992: 61-62). Of interest is that Ruffin was using the Vignoles and Ravenel map of 1820 published in Robert Mills' 1825 Atlas of South Carolina (Figure 5). While he states that the map is largely accurate, he complained that the map did not accurately portray the twists and turns of the various creeks and rivers (Matthew 1992). The Vignoles and Ravenel map is also useful in comparing names and plantations with those mentioned by Reverend Abbott.

Figure 6 shows plantations along the Cooper River drainage as they were in the year 1842 (in Irving 1932). In that year, John B. Irving traveled the river by steamboat, making commentary on the plantations, their families, and their personalities. Like the Vignoles and Ravenel map of 1820, this map also provides a back drop to compare Ruffin's travels through this portion of the state. In addition, a series of maps was compiled by H.A.M. Smith from old plats, which show settlements along the East and West Branches (Smith 1988).

On the eve of the Civil War, the Lowcountry featured a plantation economy in which rice plantations were the most profitable and noted feature, but which also presented smaller inland cotton plantations, subsistence farms, and industrial plantations and kiln sites. While the settlement system of this economy was predominantly rural, small “summer” settlements such as Cainhoy, Cordesville, Gravel Hill, Honey Hill, McClellanville, and Spring Hill were also found within the region. Despite the existence of subsistence farms, rural communities, and industrial sites, the culture of the Lowcountry was still dominated by the plantation economy, and hence the conclusion of the war and the enforced abolition of slavery precipitated dramatic change within the Lowcountry society.

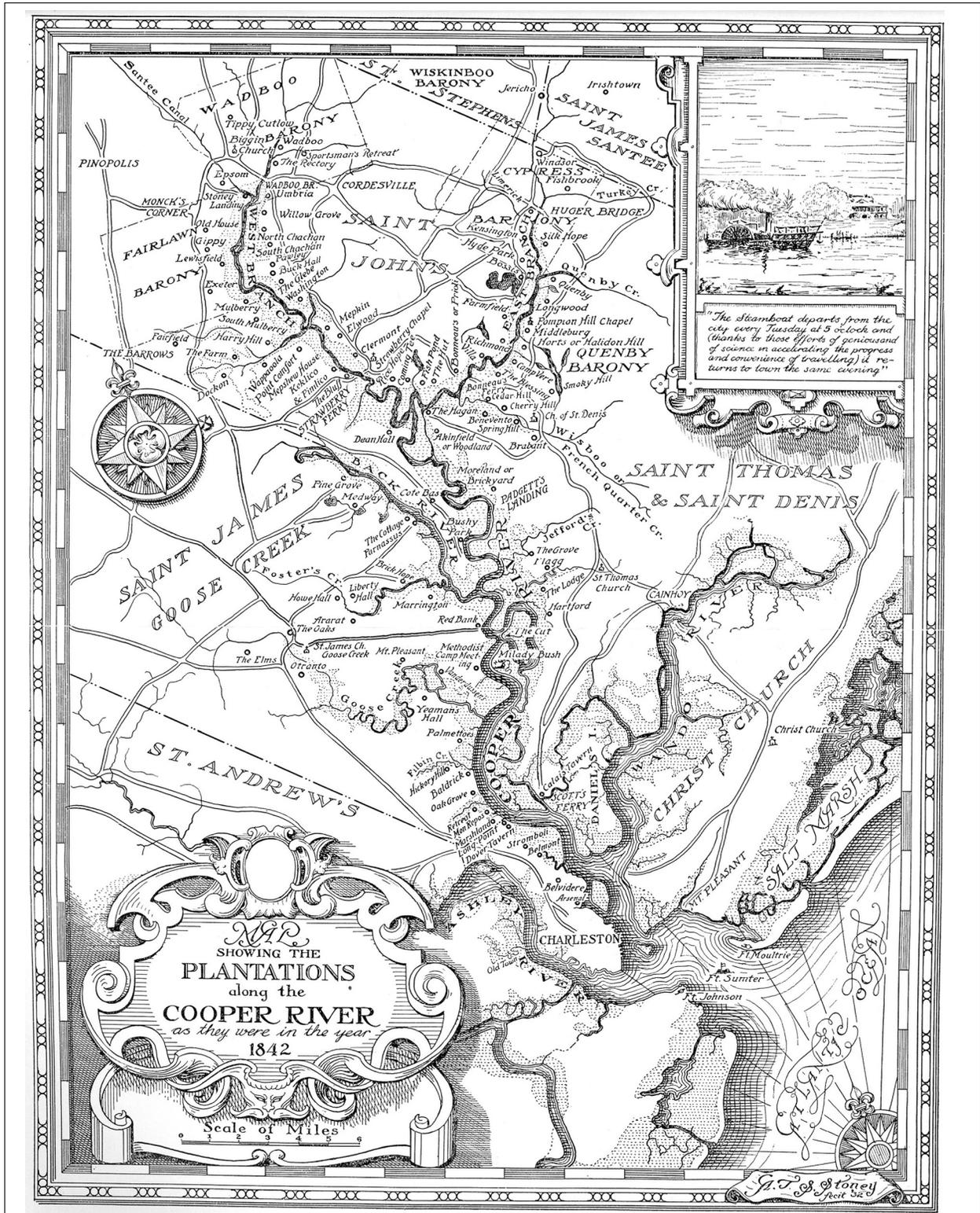
After the war, the South was forced to face the painful process of Reconstruction. The emancipation of the slaves forced Southerners who owned plantations to evolve a new system of farm labor and management. In the first years after the war, a contract wage labor system was imposed almost universally by the Freedmen’s Bureau. Many former planters liked the wage labor system since it allowed them direct supervision over the workers and provided them with a method of overseeing productivity. However, former slaves often had very specific and individual requirements or requests for their labor contracts, which frustrated the owners (Range 1954). Because of complaints by freedmen, a share system was established where they worked either as a cropper or renter. Former slaves considered it a better system since they believed that anything was better than working in a gang for wages which, to them, closely resembled slavery. With the share system, they believed that they would have more direct control over their economic lives with little interference from the white man (Range 1954).

Wage labor contracts gradually gave way to two kinds of tenancy — sharecropping and share-renting. Sharecropping required the tenant to pay the landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping, the tenant supplied the labor and half of the fertilizer, while the landlord supplied the land, house, seed, tools, work animals, animal feed, wood for fuel, and the other half of the fertilizer. The landlord, in return, received half of the crop at harvest. In share renting, the landlord supplied the land, housing, and either a quarter or a third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. Generally, when the crop was harvested it was divided in proportion to the amount of fertilizer that each party supplied. However, there were variations on this type of contract (Orser 1988).

Rice agriculture suffered most from the war, and was also impacted by its establishment in Louisiana and Texas, where soils were firm enough to withstand mechanized cultivation. As the agricultural economy of the region declined, settlement also decreased. By the late 1800s, the region supported two sets of commercial enterprise: phosphate mining and timbering. What remnants were left of the plantation economy primarily existed through the preservation of certain plantation estates by wealthy northerners as winter homes. Still others, such as Middleburg on the East Branch of Cooper River, remained in the hands of the old planter families well into the late twentieth century and produced rice into the early twentieth century.

In the late 1800s industrial timbering industries began buying up large tracts of land where they built mills and logged large stands of timber in the Southern pine belt (Hester 1997). The twentieth century witnessed a greatly diminished rural settlement focused upon subsistence and truck farming and on employment within the timber industry. Despite cooperation with government foresters, they had nearly depleted mature stands of trees by 1918. The Clarke-McNary Act of 1924 permitted the Federal government to acquire land for timber production. The purchase of the Wambaw unit corresponding to what is now Francis Marion National Forest was approved in 1928 by the National Forest Reservation Commission. Several timber

Figure 6
Cooper River Plantations in 1842 (from Irving 1932)



companies including North State, Atlantic Coast and Tuxbury held most of the 100,000 acres making up the Wambaw unit. That property was finally purchased in 1933 (Cable 2001: 26; see Fetters 1990).

In 1934 the South Carolina General Assembly created the SC Public Service Authority, Santee-Cooper, to improve navigation through the Cooper, Santee, Congaree and Wateree River systems. Lake Marion and Lake Moultrie, as well as a system of dikes and canals were built between 1938 and 1941. A 6.5 mile long diversion canal connects Lake Marion with Lake Moultrie to fill its 64,000 acres with water to operate the hydroelectric plant on Lake Moultrie (Berkeley-Charleston-Dorchester Council of Governments 1999: II-39).

In 1901 a Naval yard was established on the Cooper River, which began a dependency upon military employment. This increased during World War I and subsequent wars, and peaked in 1943. In 1941 the Charleston Naval Weapons Station was created as a Naval Ammunition Depot. To the north, a 5,000 acre U.S. Army storage area was acquired in 1954 and was annexed to the Weapons Station. Later it was converted into the Polaris Missile Facility Atlantic. This military expansion contributed to a substantial population increase in the 1950s and 1960s for the lower part of Berkeley County. The towns of Goose Creek and Hanahan were rapidly transformed from rural countryside to a heavily concentrated urban area (Berkeley-Charleston-Dorchester Council of Governments 1999: II-39).

IV. RESEARCH DESIGN

BACKGROUND RESEARCH

Background information was gathered from a number of sources, most of which are located in Columbia. These sources include:

- The State Archaeological Site Files housed at the South Carolina Institute of Archaeology and Anthropology (SCIAA) in Columbia;
- Standing Structure Surveys on file with the South Carolina Department of Archives and History (SCDAH) in Columbia which includes resources recorded in the 1989 study "The Historic Resources of Berkeley County";
- National Register files, including the Cooper River National Register District, housed at SCDAH in Columbia;
- Leland Ferguson and David Babson's cartographic study of the East Branch of Cooper River – copy on file at New South Associates, Columbia;
- Archaeological reports on file at SCIAA in Columbia;
- USC Anthropology Department Master's Theses on file at Thomas Cooper Library, USC Columbia;
- Countywide histories; and
- Other resources identified during background research.

Staff from New South also drove through the Cooper River area and made notes on the current condition of the various locations of the project area and noted any obvious threats. We also interviewed managers that could provide us with insight as to future threats or problems. They included Beaufort County planners and managers, Archives and History staff, Historic Charleston Foundation staff, the Heritage Trust archaeologist, the SC Parks, Recreation, and Tourism archaeologist, US Forest Service archaeologists, SCDOT archaeologists, and archaeologists who routinely work in the area. Archaeological reports were also consulted to determine the condition of sites and any future threats.

ANALYSIS

Analysis of the compiled information included:

- Putting the locations of archaeological, architectural, and historical resources on USGS topographic maps in a GIS database using ESRI's ArcView 3.2. The GIS layers will allow new information to be added or updated in the future and will allow the printing of maps at various scales and of various locations on an as needed basis;

- Compiling an associated GIS database to minimally include official state numbers and/or historic names, National Register eligibility recommendations (on the Register, eligible for inclusion in the Register, potentially eligible for inclusion in the Register, not eligible for inclusion in the Register; eligibility unknown), type of resource (e.g. prehistoric site, historic site, standing structure, etc.), and current condition if known.
- Determining the kinds of threats to significant or potentially significant sites or properties, if this can be ascertained. Determine any locations within the study area that are particularly threatened.

The South Carolina Department of Archives and History and the South Carolina Institute of Archaeology and Anthropology have most archaeological sites, all National Register sites and districts, and all recorded standing structures in a GIS database. This data is in NAD 1927 UTM Zone 17N projection and we used their GIS layers as the foundation for this project. However, additional points, polygons, and fields were added to the database since the archaeological data was approximately three years out of date. Also, some updating was necessary to include National Register eligibility changes brought on with the nomination of the Cooper River National Register District.

In addition to updating the archaeology layer, we plotted recorded cemeteries into a GIS layer and included information such as name, state site number (if recorded as an archaeological site), and National Register eligibility.

V. CULTURAL RESOURCE LEGISLATION AND PERMITTING

The following Federal, State, and Local laws, regulations, and permitting affect cultural resources in Berkeley County and are discussed in detail below. They include:

- Section 106 of the National Historic Preservation Act, as amended;
- Protection of State Owned or Leased Historic Properties;
- Coastal Zone Management Act of 1976;
- DHEC Mining Permits;
- Hazardous Waste Management Facilities;
- Berkeley County Special Area Permits;
- State Laws Concerning Cemeteries; and
- The South Carolina Underwater Antiquities Act.

FEDERAL LEGISLATION

SECTION 106 NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED

Much of what has been recorded in Berkeley County is a result of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (see Appendix A). This legislation requires that if Federal funding or permitting is involved in an undertaking, that the effects of the project on cultural resources must be considered. Federal agencies carry out many activities that may affect historic properties. These include projects affecting property owned by the federal government such as rehabilitation or demolition of federal courthouses or timber management on U.S. Forest Service land. Federal activities also include projects assisted with federal funds, grants, or loans, such as Community Development Block Grants. Other activities require federal permits or licenses such as a Federal Communications Corporation (FCC) license needed to construct a cellular communications tower or a Federal Deposit Insurance Corporation (FDIC) license needed to open a branch bank, or an Army Corps of Engineers permit needed to fill a wetland. Also included are highway widening projects and new roads which are funded with federal dollars. All of these activities are subject to the Section 106 process. Federal agencies are responsible for determining which of their activities are subject to Section 106 review and for ensuring that their designees and program applicants carry out responsibilities delegated to them.

The law and regulations require federal agencies to consult with the State Historic Preservation Officer (SHPO) and give the Advisory Council on Historic Preservation an opportunity to comment before projects

are implemented. The Section 106 process also provides for public input in the decision making. The Section 106 regulations outline a process for allowing federal agencies to fully consider historic preservation issues in planning projects. Federal agencies are responsible for completing the following steps in the process:

1. Initiating Review: The agency must determine if Section 106 applies to a given project and, if so, initiate review.
2. Identifying Historic Properties: They must determine the area that will be affected by the project (i.e., the area of potential effects or APE) and gather information to decide which properties in the project area are listed in or eligible for the National Register of Historic Places.
3. Assessing Effects on Historic Properties: They must determine how historic properties might be affected by the project.
4. Resolving Adverse Effects: They must explore feasible alternatives to avoid or reduce harm to historic properties. Then the agency must reach agreement with the State Historic Preservation Officer (and the Advisory Council in some cases) on measures to deal with any adverse effects (from the SCDAH webpage: <http://www.state.sc.us/scdah/hpsection106review.htm>).

Archaeological sites and standing structures are assessed using the criteria put forth in *National Register Bulletin 36* (Townsend et al. 1993). The quality of significance in archaeology and architecture is present in sites that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.

Sites and standing structures are recommended as not eligible, potentially eligible, or eligible for the National Register of Historic Places. A number of archaeological sites have never been officially assessed for their National Register eligibility and are listed as "unknown". Obviously, "not eligible" means that the resource does not fulfill any of the National Register criteria and an undertaking will not adversely impact a significant cultural resource. A recommendation of "potential eligibility" or "eligibility not determined" means that additional work is needed to determine if a site or structure fulfills any of the National Register criteria. A recommendation of "eligible" means that the cultural resources contain criteria and attributes that would make it eligible for inclusion in the National Register of Historic Places. If the site is determined

“eligible” it is not automatically listed on the National Register. To list the resource, a National Register form would have to be filed and the nomination would have to pass state and federal review.

As previously mentioned, a recommendation of “potentially eligible” or “eligibility not determined” means that additional work is needed to determine eligibility. For standing structures this additional work could include more in depth historical research as well as a more thorough examination of the structural elements and integrity to determine if they qualify under Criteria A, B, and/or C. Typically standing structures do not qualify under Criterion D. For archaeological sites, additional work usually means that subsurface testing is needed to determine what kind of data are present, its integrity and whether the data has the ability to address important research questions. Therefore, archaeological sites are usually evaluated through Criterion D because the significance of archaeological remains is more obscure than other types of sites. Unusual archaeological sites, such as those containing unique standing structures or with a known history (the birthplace of a famous person or the location of an event significant in American history) are often significant under additional criteria, although they may also have archaeological deposits significant under Criterion D.

Most researchers accept that the “significance of an archaeological site is based on the potential of the site to contribute to the scientific or humanistic understanding of the past” (Bense et al. 1986:60; see also Butler 1987). Michael Glassow (1977) uses physical characteristics to determine the resources potential to contribute to research. These physical attributes consist of *variety, quantity, integrity, clarity, and environmental context*. Of these characteristics, *integrity* is given the greatest weight since without it, interpretation is, at best, tenuous. *Quantity* is considered the least important since it is dependant of site type. For instance, sites continuously occupied or re-occupied will produce more artifacts than short-term occupations. All of these sites comprise the totality of the human record and must be examined to obtain a complete understanding of past lifeways.

A recommendation of “eligible” means that a significant resource will be adversely affected if an undertaking, such as road construction or earth moving, is to occur. To mitigate this adverse impact, the archaeological resource can either be preserved in place or data recovery can be undertaken to collect the important information before the resource is destroyed. For standing structures, mitigation can occur through HABS/HAER documentation. Alternatively, the structure can be moved, although in some cases this can detract from its eligibility, unless it is moved to a similar setting. In the situation where mitigation must occur all agencies will typically enter into a Memorandum of Agreement (MOA) regarding the treatment of the resource. This MOA typically includes a preservation plan, if the resource is to be preserved in place. If it cannot be preserved in place a data recovery plan is submitted outlining the field methods, analysis, and reporting of any archaeological work there. If the resource is a standing structure, this data recovery may consist of the HABS/HAER documentation.

Cultural resources recommended as eligible for the National Register can be significant at the Local, State, or National level. Cultural resources listed as National Historic Landmarks are also listed on the National Register. However, National Historic Landmarks have illustrated that they contain “exceptional value in representing or illustrating an important theme in the history of the Nation” (<http://www.cr.nps.gov>; National Park Service Website).

STATE AND LOCAL LEGISLATION

PROTECTION OF STATE OWNED OR LEASE HISTORIC PROPERTIES

Title 60 of the 1976 Code of Laws of South Carolina was amended in 1992 by adding Chapter 12 "Protection of State Owned or Leased Properties" (see Appendix B). This amendment gives "authority to the Department of Archives and History to identify, record, and evaluate all State-owned or leased facilities to determine which of these facilities may be considered historically significant. . . [and to] institute a historic preservation review process for permanent improvements and construction affecting historic properties or facilities." Section 60-12-30 of the law also requires state agencies to "consult with the department when planning projects that might adversely affect those properties listed in the National Register of Historic Places at the time of consultation." (from SCDAH, SCIAA, and COSCAPA 2000: 4).

COASTAL ZONE MANAGEMENT ACT OF 1976

The Coastal Zone Management Act of 1976, as amended (Title 48, Chapter 39 of the South Carolina Code of Laws) created the South Carolina Coastal Council (now DHEC-OCRM) and addressed protection of historical and archaeological properties as well as other environmental issues. Section 48-39-150 of the Act, as amended, requires DHEC-OCRM to consider the "extent to which the development could affect ...irreplaceable historic and archaeological sites of South Carolina's coastal zone" when deciding whether or not to issue a certification or permit (see Appendix C).

The Coastal Zone Management Act, as amended, directs DHEC-OCRM to develop, implement, and enforce a comprehensive coastal management program. Under its Coastal Zone Management Program, OCRM has designated certain natural and cultural areas as "Geographic Areas of Particular Concern" (GAPCs). These include archaeological sites that are listed in or eligible for the National Register of Historic Places. The State Historic Preservation Office (SHPO) is asked to advise OCRM on the management of cultural resources and to determine the eligibility of archaeological sites, structures, objects, and districts for nomination to the NRHP.

The Coastal Zone Management Program includes:

(A) a regulatory system to manage development in the critical areas. "Critical areas" include coastal waters, tidelands, and beach/dune systems. In these areas DHEC-OCRM has direct jurisdiction for permits; and

(B) a system for reviewing state permitted projects, direct federal activities, and any federally permitted, licensed, or funded project in the coastal zone area. The purpose of the review and certification process is to determine if the project is consistent with the policies and procedures of the South Carolina coastal management program. Examples of actions that DHEC-OCRM reviews for consistency are projects requiring state stormwater permits, federal stormwater (NPDES) permits, state sewer and water permits, Army Corps of Engineers permits, and federal grants (from SHPO, SCIAA, and COSCAPA 2000: 5; and SCDAH http://www.state.sc.us/scdah/hpDHEC_OCRMreview.htm:2004).

DHEC MINING PERMITS

The South Carolina Mining Act (Sections 48-20-10 through 48-20-310 of the South Carolina Code of Laws) mandates that no mining may be carried out in South Carolina unless "plans for the mining include reasonable provisions for protection of the surrounding environment and for reclamation of the area of land affected by the mining" (see Appendix D). Applicants for mining permits must present reclamation plans to the South Carolina Department of Health and Environmental Control's (DHEC's) Division of Mining and Solid Waste Management. According to the Mining Act (Section 48-20-40), reclamation plans must include "proposed methods to limit significant adverse effects on significant cultural or historic sites."

Chapter 89-120(C)(4) of the South Carolina Code of Regulations authorizes the Department of Health and Environmental Control (DHEC) to require surveys of cultural and/or historic resources on a proposed mine site and to use information from the survey to "determine provisions which meet the requirements for the protection, relocation, or excavation of significant cultural or historic sites as mining progresses".

The State Historic Preservation Office (SHPO) advises the South Carolina Department of Health and Environmental Control's (DHEC's) Division of Mining and Solid Waste Management on the potential impact of mining operations on historic properties. Upon the SHPO's recommendation, the Division may require a mining permit applicant to conduct a survey of the proposed mining site to identify buildings, sites, and structures that are eligible for the National Register of Historic Places and to modify plans to avoid damage to sites listed in or eligible for the National Register (from [http:// www.state.sc.us /scdah/hpminingpermit.htm](http://www.state.sc.us/scdah/hpminingpermit.htm)).

HAZARDOUS WASTE MANAGEMENT FACILITIES (DHEC)

The South Carolina Department of Health and Environmental Control (DHEC) has published regulations governing the location of hazardous waste management facilities (S.C. Code of Regulations 61-104; Appendix E). The regulation stipulates that hazardous waste treatment, storage, and disposal facilities will be prohibited in areas where they will "adversely impact an archaeological site as determined by the State Historic Preservation Officer and the State Archaeologist or a historic site as determined by the State Historic Preservation Officer" (R. 61-104, IV, D.2.a). The SHPO provides comment on how hazardous waste facilities will affect historic properties (from SCDAH, SCIAA, and COSCAPA 2000: 5).

BERKELEY COUNTY SPECIAL AREA PERMIT

A Special Area Permit (Appendix F) is required "for any proposed developments affecting properties listed on the National Register of Historic Places or locally designated sites. Exemptions include single family residential uses (including single family detached, modular housing and manufactured housing per zoning classification of the parcel) when such use does not exceed one unit per parcel on lots of record as of the date of this ordinance (adopted August 27, 2001); and for only one lot subdivision of a parcel and the Zoning administrator determines, in conjunction with the application for a zoning and building permit that the requested change would not have a clear and substantial detrimental impact on the character of the historic district" (see Appendix F).

Special Area Permits are required when:

- A. The development would physically alter a National Register Listing or Local Designated site situated in Berkeley County;
- B. That, by the creation of vibration, air emissions, noise or odor, or when the bulk and/or placement of the structure would in all likelihood produce physical alterations in such National Register Listing or Local Designated site, or substantially impair the use and enjoyment of such National Register Listing or Local Designated site by the citizens of Berkeley County; or
- C. For National Register Listings or Local Designated sites situated along the main channel of the East and West branches of the Cooper River as well as the main channel of the Wando and Santee Rivers, which would be visible from ground level of the National Register Listing, up or down the riverscape, up to a distance of two thousand six hundred forty (2,640) feet from such National Register Listing or Local Designated site.

STATE LAW CONCERNING CEMETERIES

Although not all cemeteries are considered to be significant cultural resources, they are all protected by state law which makes it a felony to knowingly destroy or desecrate burial grounds. State law also establishes a legal framework for moving abandoned cemeteries when necessary. There are several South Carolina codes regarding the destruction and desecration of cemeteries; the removal of abandoned cemeteries; as well as the preservation of abandoned or unmaintained cemeteries. These include South Carolina Code 27-43-10, Removal of Abandoned Cemeteries; 27-43-20, Removal to Plot Agreeable to Governing Body and Relatives; 27-43-30, Supervision of Removal Work; and 16-17-600, Destruction of Graves and Graveyards. (from SCDAH, SCIAA, and COSCAPA 2000: 6). These codes are presented as Appendix G.

SOUTH CAROLINA UNDERWATER ANTIQUITIES ACT

The South Carolina Underwater Antiquities Act of 1991 makes the South Carolina Institute of Archaeology and Anthropology (SCIAA) responsible for managing and protecting the state's underwater archaeological resources on behalf of the State Budget and Control Board (SC Code of Laws, Section 57-7-610 et. Seq.). No artifact or fossil may be removed from a state-owned river or ocean bottom, nor may it be disturbed without formal review and license issued by SCIAA Underwater Archaeology Division. Section 57-7-815 states that no person may excavate or salvage any sunken warship found within state waters that contains, or is believed to contain, human remains without expressed approval. Persons violating this section are guilty of a felony and may be fined at the discretion of the court and/or sentenced to a term not to exceed five (5) years. Other violations are considered misdemeanors (from SCDAH, SCIAA, and COSCAPA 2000: 6-7) (Appendix H).

VI. PREVIOUS RESEARCH

ARCHITECTURAL STUDIES

Several published volumes have reviewed the architectural resources of the Cooper River region. *Plantations of the Carolina Low Country* by Samuel Gailliard Stoney, published in 1938, examines numerous standing structures in both Berkeley and Charleston Counties, as well as provides a discussion of what is historically known about houses no longer standing.

Leiding's (1912) *Historic Houses of South Carolina*, while covering all of the state, dedicates three chapters toward the historic architecture of the Cooper River Valley. More recently published was the 1979 Historic Preservation Inventory by Elias Bull. In 1989 the study was expanded and is the most complete examination and evaluation of standing historic architecture in the County thus far (Preservation Consultants 1989). It is unknown how many of the significant structures surveyed in 1989 survived Hurricane Hugo. Only a resurvey of those buildings could determine what the degree of loss is or if hurricane damage has changed the National Register eligibility of some buildings. Fortunately much, although not all, of the information within the study area has been retrieved. In preparation of the National Register nomination of the 2003 Cooper River Historic District many of the standing structures recorded in 1989 were revisited to determine if they contributed to the eligibility of the district.

An architectural examination of eighteenth century slave housing (Adams 1990) looked primarily at archaeological evidence and historical documentation related to Berkeley County slave settlements of the eighteenth century. An extant slave house exists within the Cooper River Historic District on Strawberry Plantation and is the only recorded standing slave house in the County. It is a rectangular one-story frame weatherboard house with a central brick chimney, standing seam metal roof and a single-bay shed porch with simple posts set into concrete on the asymmetrical four-bay principal façade. The rectangular one story house with a central brick chimney was probably a common style in the antebellum period.

ARCHAEOLOGICAL STUDIES

In 1994 Carl Steen produced an annotated bibliography of historic sites archaeology in the Berkeley, Charleston, Dorchester region. It briefly reviews reports and summarized the work discussed. In reviewing this document, and later reports, it is clear that a great deal of the intensive archaeological examinations that have taken place in Berkeley County have occurred outside of the Cooper River Valley study area. The primary reason for this is that much of this area remains rural and undeveloped, while outside this area there has been a greater degree of development. Therefore, the cultural resource legislation that typically initiates these studies has not come into play in much of the Cooper River Valley.

Although there have been relatively few excavations, there has been a large number of archaeological surveys undertaken in Berkeley County – many associated with inventorying resources in Francis Marion National Forest. Other studies have located archaeological sites on the Charleston US Naval Weapons Station, in landfill expansion sites, along utilities corridors, along roads to be widened by SCDOT, and on tracts slated for private or industrial development. Relatively few of the sites identified have been further examined with any intensity. Within and adjacent to the study area, some of the more notable sites that

have been excavated are briefly discussed below. The work at most of these sites was due to impending impacts from development to historic plantation sites. Many, if not most, are now partially or completely destroyed. Almost no examinations of prehistoric sites have occurred in the Cooper River Valley. Most of the work that has been accomplished in the County has occurred on U.S. Forest Service property further east. On the Lower Santee River, Anderson et al's (1982) work at the Mattassee Lake sites has produced one of the most thorough typologies of South Carolina prehistoric ceramics in the Coastal Plain region and it is widely cited by archaeologists working in the region.

EAST BRANCH

Much of the archaeological work accomplished along the East Branch of Cooper River was performed by Leland Ferguson of the University of South Carolina and his students. The vast majority of this work was performed at 38BK38, Middleburg Plantation, some of which is discussed in Ferguson's book on African-American archaeology (Ferguson 1992). Students Patti Byra (1996) and Kerri Barile (1999) have respectively examined Middleburg's landscape alterations in light the planter's ambivalence towards slavery and the affect of the Denmark Vesey slave conspiracy. Natalie Adams (1990) discussed the results of the excavation of one of the slave houses there, and provided a synthesis on what is known about 18th century slave housing in Berkeley County (see also Adams 2001). Richard Affleck (1990) discussed settlement patterning change at Middleburg, as well as Halidon Hill, the Blessing, Smoky Hill, Loch Lomond, and Campvere Plantations. Testing at Smoky Hill settlement at Middleburg revealed evidence for an early plantation main house associated with the Simons family and is believed to be where Benjamin Simons III lived and worked for his father early in his planting career, perhaps as an overseer (Affleck 1990; see also Rogers 1968).

At Limerick Plantation William Lees (1980) examined a portion of the plantation settlement there, focusing on the main house and a possible carriage house. HABS drawings of the Limerick main house provided good evidence for the architectural transformations the house undertook, while the archaeology uncovered a cellar with a double hearth chimney and flagstone paving. Lees also investigated an area of artifacts that may have represented either an eighteenth century domestic occupation or a kitchen. No architectural features were found associated with this scatter. Ferguson's student David Babson (1987; 1990) examined the Tanner Road settlement at Limerick Plantation, looking for archaeological manifestations of racism through examining settlement patterning. Contests of dominance and resistance were illustrated through the location of settlements in relation to geographic features. Ferguson and Babson (1986) also performed a cartographic study of the East Branch, collecting late eighteenth century historic plats and transferring the information onto USGS quadrangle maps. The resulting map is included with the GIS data submitted with this current project.

In 1999 Chicora Foundation wrote an archaeological and historical overview of the East Cooper River Zone Planning Area as a part of pre-planning the location of proposed wastewater facilities. The majority of the area examined was found to be included in the proposed Cooper River National Register District and consists of almost all of the current study area. Chicora Foundation concluded that this area is extremely archaeologically sensitive (Trinkley 1999).

UPPER WEST BRANCH

Two of the earliest plantation studies in South Carolina consists of work performed at Spiers Landing (Drucker and Anthony 1979) and Vaughan and Curriboo Plantations (Wheaton et al. 1983) as a result of the Cooper River redirection canal project. Although located outside of the study area, these studies formed

the early basis for the examination of slave settlements throughout the South Carolina Lowcountry. The work at Spiers Landing uncovered a late eighteenth to early nineteenth century slave house with post in ground construction and a stick and clay chimney. The siding for the house was probably clapboard. At Yaughan and Curriboo Plantation, Wheaton et al. (1983) found that the early slave houses dating to the mid eighteenth century had a wall trench foundation which indicated that the house walls were manufactured from clay. By the late eighteenth century, these houses were replaced by structures which more resembled the house found at Spiers Landing. In addition to numerous slave houses, the work at Yaughan and Curriboo uncovered a barn, several sheds, and a large quantity of "random" posts and possible fence lines. Based on the examination of archaeological data and historic documents, the evolution of slave housing found at Yaughan and Curriboo is believed to have occurred throughout the County (Adams 1990).

Near the community of Whitesville, archaeological data recovery occurred at the main house and slave row of The Crawl Plantation (Adams 1995). Work there uncovered the foundations of two consecutively built plantation main houses side by side and explored the slave settlement. The work performed there will add important information to our understanding of early main house architecture in areas away from the affluent plantations in Goose Creek and along the main river channel. No report has yet been written on these investigations (see www.chicora.org/publications.htm). Located on the upper reaches of a small creek known as Molly Branch, this plantation was not the owner's primary residence nor does it appear to have served as a rural retreat. Work at the slave settlement revealed post and trench architecture and numerous pits which were probably dug for the extraction of clay for house construction and colonoware pottery manufacture.

The Town of Childsbury and Strawberry Landing has been the focus of work by Bill Barr (1995) as a part of his master's thesis. Also, Lesley Drucker performed an intensive archaeological survey of this area, which was published as a detailed management summary (Drucker and Schohn 1999). This site was recently purchased by the South Carolina Department of Natural Resources as a preserve. Currently, there is an interpretive kiosk on site which provides information on the Town's history and shows several historic maps of the Town.

Also of interest is a survey performed by Poplin and Chapman (1990) of the Stoney Landing Development Tract, where they assessed several sites including the Revolutionary War redoubt adjacent to Fairlawn Plantation. According to their report, the redoubt (38BK1030) is in excellent condition as well as the adjacent camp and battle site. However, the site is reportedly under attack by local pothunters and deserves protection, if at all possible (see discussion in Poplin and Chapman 1990). The local chapter of the Daughters of the American Revolution have unsuccessfully attempted to purchase the site (Ms. Ann Propst, personal communication 2004). It is located on private property to the south of Santee Canal State Park and is, therefore, unprotected. The site has been recommended as eligible for inclusion in the National Register.

The terrestrial and underwater resources of the Santee Canal State Park and Sanctuary has been inventoried by Charles and Mill (1987) and Simmons and Newell (1989). While Charles and Mills dealt with sites adjacent to the canal which included Stoney Landing Plantation and an industrial complex, Simmons and Newell examined the contents of the canal including boats, barges, locks, and other underwater features.

LOWER WEST BRANCH

Much of the archaeological data recovery that has occurred in the Lower West Branch is located outside of the study area. Three plantations (Liberty Hall, Broom Hall, and Crowfield) have received a great deal of archaeological attention just southwest of the study area near Goose Creek (see, in particular, Elliott 1987; Trinkley et al. 1992; 1995; 2003a and b). At all three plantations, much of the work focused on the slave settlement. However, a relatively thorough study of the early Broom Hall main house, outbuildings, and gardens was also performed.

Work at Liberty Hall examined four artifact concentrations through limited hand excavation and mechanical stripping. Artifacts dated from the early eighteenth to early nineteenth century. Unfortunately the excavations uncovered no evidence of features (Trinkley et al. 2003a).

At Crowfield Plantation, some limited work was performed at the main house and included an examination of the formal garden layout (Trinkley et al. 1992). In 2003, data recovery focused on an adjacent slave settlement. Evidence of at least six slave houses were found, with five of the six having wall trench architecture similar to that found at Yaughan and Curiboo. The focus of the artifact analysis was the African-American colonoware assemblage (Trinkley et al. 2003a).

Work at the Broom Hall slave row recovered an eighteenth century artifact assemblage in a deeply plowed context. Unfortunately, the only substantial feature was a large agricultural ditch that was probably post-occupational. An area of a nineteenth century slave occupation was also examined and no evidence of architectural features were found. Within the main house complex, a portion of the eighteenth century main house cellar was excavated. The cellar was filled with large pieces of pottery – many of which could be mended into whole or nearly whole vessels. Also explored was a green house or potting house, a garden area with a remnant parterre wall, a stable or gig house, an early nineteenth century frame house, a two bay brick structure, a yard area, and a brick concentration (Trinkley et al. 1995).

In 1992 Diachronic Research examined the slave settlement and main house at Pine Grove Plantation adjacent to Medway Plantation on the Back River and Carl Steen (1993) provided a preliminary report of his findings. Additional work was performed the following year, but no report has yet been written. According to Steen, a report on this work will be prepared within the next couple of years. In sum, it consisted of the excavation of 50 cm squares and 2 by 2 meter excavation units at the main house and slave settlement. They uncovered and mapped the main house and barn, and mechanically stripped a portion of the slave settlement. At the slave settlement they found many post holes and pit features. A few houses were recognized. The foundation was post in ground construction. This settlement dated from the late eighteenth century to the Civil War (Mr. Carl Steen, personal communication 2004).

In the 1970s Elaine Harold and her associates from the Charleston Museum performed a series of surveys and investigations on the Amoco tract, now owned by BP (Harold and Scruggs 1975, 1979; Harold et al. (1978). This work included a study at the Flagg and Grove Plantations where they found main houses, slave settlements, brickyards and landings. Hartley and Stephenson (1975) also examined the Flagg and Grove Plantations. Mark Brooks and Jim Scurry (1979) performed a large scale survey of the Amoco Realty property and found numerous archaeological sites. As a part of that study they tested two subsistence-settlement hypotheses for the prehistoric period. This work is still cited by prehistorians working in the Berkeley County area who are interested in prehistoric site predictive modeling.

A proposed 1,030 acre development of 2,467 acres owned by Nucor Steel was surveyed (Rust and Poplin 1995a, b, and c) which identified 21 archaeological sites. Seven of those sites were recommended as either eligible or potentially eligible. These sites were primarily associated with historic Hagan, Moreland and Akinfield Plantations. In 1996, Brockington and Associates excavated site 38BK1731 on the Nucor Steel Tract (Rust et al. 1996). The site consisted of a nineteenth century brick kiln and landing associated with Moreland Plantation. The work uncovered evidence of two phases of kiln construction and was a typical clamp style kiln (Rust et al. 1996). The site has since been destroyed by development.

To the south of the study area at the Naval Weapons Station, Brockington and Associates have identified a number of plantations and prehistoric sites, several of which have been determined to be significant resources (Brockington et al. 1995). As an outgrowth of this study, they have created a GIS model to predict potential archaeological site locations which has applications for the rest of the County (Whitley 2001).

CEMETERY STUDIES

Two South Carolina Genealogical Society publications (1985; 1995) have mapped the locations of 129 cemeteries in the entire county. Cemeteries have also been recorded as archaeological sites and as components of National Register sites and districts.

As a graduate student in the Anthropology Department at the University of South Carolina, Cynthia Connor (1989) examined black mortuary behavior on the East Branch of Cooper River. Her study, however, only examined a few of the more obvious cemeteries in that region and did not attempt to inventory and analyze all African-American cemeteries through time. While European-American cemeteries are often well marked by stone markers, early African-American cemeteries typically contained wooden markers that deteriorate over time and are often no longer extant. This makes identifying African-American cemeteries somewhat challenging. They often exist as a cluster of shallow grave depressions and perhaps a scatter of grave goods such as broken bottles, vases, and figurines. Often they are nearly impossible to identify if they've been inactive for a long time.

VII. THE RESOURCES

THE EAST BRANCH

The East Branch Region is roughly defined within the study area by river drainage patterns starting at the Tee (or confluence of the East and West Branches of Cooper River). The boundary follows the center of a ridge dividing French Quarter Creek and the main channel of the Cooper River down to Hwy 41. It follows Hwy 41 north and then west along Hwy 402 to Cordesville. It then heads south-southwest to the mouth of Comingtee Creek and then back to the Tee.

NATIONAL REGISTER AND NATIONAL HISTORIC LANDMARK SITES

All National Register listed and National Historic Landmark sites in the East Branch cultural area are encompassed in the ***Cooper River National Register District***, except for ***Calais Milestone 12*** marker. The mile marker is part of the Road to Calais, described below. This marker is located at County Road 98 and 44, south of the Cooper River District. Although it is listed on the National Register of Historic Places it is unprotected. There are no known threats.

The ***Cooper River National Register District*** is located within the East Branch study area, although small portions are also found on the Upper and Lower West Branch. Many of the contributing elements to the district had not been digitized in the SCDAH National Register GIS layer. However, they are listed in Table 1. The district was entered in the National Register of Historic Places on February 5th, 2003. It covers approximately 30,020 acres and contains 121 contributing and 96 noncontributing resources. These resources include domestic structures, outbuildings, cemeteries, agricultural fields, and irrigation facilities. The period of significance ranges from 1678 to 1942. The district is centered along both sides of the East Branch of the Cooper River and contains a remarkably intact historic and cultural landscape. Because many of these plantations were bought up by wealthy northerners in the early twentieth century as hunting preserves and for timber resources, these landholdings have largely been preserved. Other plantations remained in the hands of local families who were committed to preserving the natural environment and historic features. Today, there is a strong interest in conserving the landscape of the district among the landowners and recently several tracts have been protected with conservation easements. The National Register of Historic Places Registration form provides detailed descriptions of the various contributing properties and their protected status. The information is summarized in the following paragraphs. If the resource is protected or there is a known threat, this information is provided below.

A 25 mile stretch of the Cooper River is included in the district. This includes the entire East Branch, a portion of the West Branch, and an area of the river below the confluence at the Tee.

The Road to Calais served as one of the inland routes between many of the Cooper River settlements and plantations to the port Town of Charleston. This road is paved and used as a public road except for a lost portion through the Blessing Plantation and a dirt portion through the privately-held Westvaco Property. Several stone markers dating from the 1780s still exist within the district and include the 18, 19, and 20 mile marker. South Carolina Department of Natural Resources is currently purchasing 10,697 acres in this area as a preserve which will include these Calais markers.

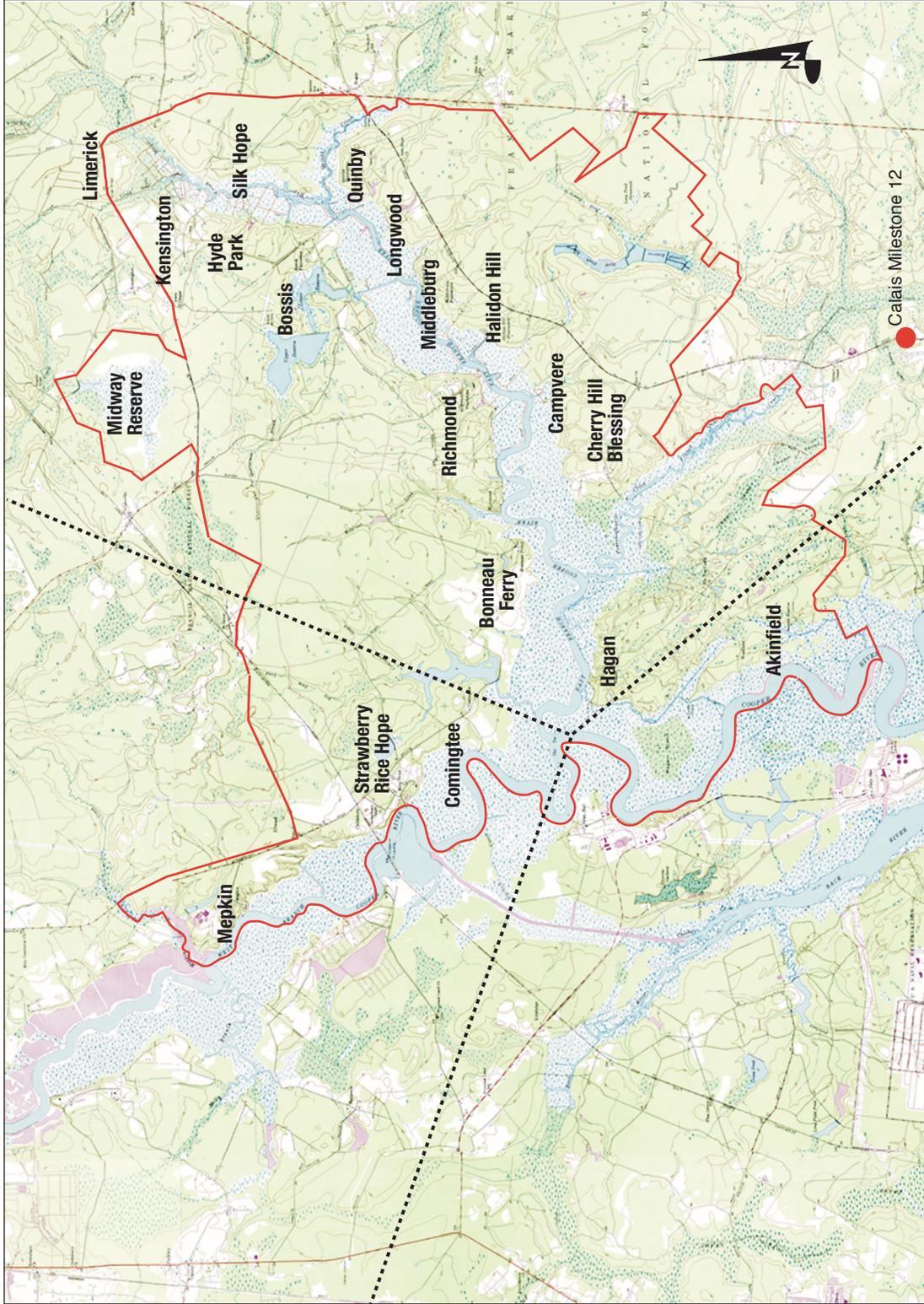


Figure 7
Cooper River National Register District

Table 1. Contributing Resources in the Cooper River National Register Historic District

| # | Resources and their Contributing Elements | Survey # |
|-----------|--|----------|
| 1 | Cooper River | |
| 2 | Road to Calais | |
| | Calais Mile Marker #20 | 2.01 |
| | Calais Mile Marker #19 | 2.02 |
| | Calais Mile Marker #18 | 2.03 |
| 3 | Akinfield Plantation | |
| | Archaeological Site 38BK1790 | 3.01 |
| 4 | Hagan Plantation | |
| | Archaeological Site 38BK183 | 4.01 |
| | Underwater Archaeological Site 38BK163 | 4.02 |
| | Underwater Archaeological Site 38BK604 | 4.03 |
| 5 | French Quarter Creek Canal (before 1800) | |
| 6 | Huguenot Society of South Carolina Marker (1922) | |
| 7 | Blessing Plantation | |
| | Blessing Plantation House (1834) | 7.01 |
| | Ricefields (336 acres) | 7.02 |
| | Underwater Bonneau Ferry Structure Archaeol. Site (38BK1267) | 7.03 |
| | African-American Cemetery (38BK1104) | 7.04 |
| | Steam Engine (1930s) | 7.05 |
| 8 | Cherry Hill Plantation | |
| | Ricefields (90 acres) | 8.01 |
| | Rice Mill Chimney (ca. 1830) | 8.02 |
| | Steam Engine | 8.03 |
| 9 | Campvere Plantation | |
| | Oak Avenue and House Site | 9.01 |
| | Slave Cemetery (38BK1105) | 9.02 |
| 10 | Halidon Hill Plantation | |
| | Quinby Plantation House (ca. 1792) | 10.01 |
| | Archaeological Site (38BK1736) | 10.02 |
| | Ricefields (100 acres) | 10.03 |
| | Inland Rice Fields and Reserves (approx. 226 acres) | 10.04 |
| | Archaeological Site (38BK1734) | 10.05 |
| | Archaeological Site (38BK1106) | 10.06 |
| | Archaeological Site (38BK1733) | 10.07 |
| | Archaeological Site (38BK1735) | 10.08 |
| 11 | Middleburg Plantation (38BK38) | |
| | Middleburg Plantation House (ca. 1697) | 11.01 |
| | Oak Avenue | 11.02 |
| | Slave Cemetery (18th c.: 38BK1107) | 11.03 |
| | Ricefields (90 acres) | 11.04 |
| | Steam Engine | 11.05 |
| | Rice Mill Ruins and Chimney (ca. 1800) | 11.06 |
| | Toll Office (1820s) | 11.07 |

| # | Resources and their Contributing Elements (continued) | Survey # |
|-----------|--|----------|
| | Commissary (ca. 1820s) | 11.08 |
| | Kitchen (1792-1793) | 11.09 |
| | Archaeological Site (38BK38) | 11.1 |
| 12 | Pompion Hill Church | |
| | Church (ca. 1763) | 12.01 |
| | Cemetery (ca. 1754; 38BK57) | 12.02 |
| | Underwater Archaeological Site (38BK166) | 12.03 |
| 13 | Longwood Plantation (Pompion Hill Plantation) | |
| | Ricefields (113 acres) | 13.01 |
| | Archaeological Site (38BK891) | 13.02 |
| 14 | Quinby Plantation | |
| | Oak Avenue | 14.01 |
| | Slave Cemetery (38BK1110) | 14.02 |
| 15 | Silk Hope Plantation | |
| | Grave of Governor Nathaniel Johnson (1713; 38BK1111) | 15.01 |
| | Silk Hope Plantation House Archaeological Site (38BK172) | 15.02 |
| | Brick Barn Ruins (18th c.) | 5.03 |
| 16 | Limerick Plantation | |
| | Limerick Public Boat Landing Archaeological Site (38BK328) | 16.01 |
| | Archaeological Site (38BK1770) | 16.02 |
| | Archaeological Site (38BK181/223) | 16.03 |
| | Oak Avenue | 16.04 |
| | Ricefields (100 acres) | 16.05 |
| | Underwater Archaeological site (38BK263) | 16.06 |
| | Archaeological Site (38BK1113) | 16.07 |
| 17 | Kensington Plantation | |
| | Archaeological Site (38BK178) | 17.01 |
| | Oak Avenue | 17.02 |
| | Overseer's House (ca. 1830) | 17.03 |
| | Ricefields (180 acres) | 17.04 |
| | Slave Cemetery (1816; 38BK1116) | 17.05 |
| 18 | Midway Reserve | |
| | Midway Rice Reserve (150 acres) | 18.01 |
| 19 | Hyde Park Plantation | |
| | Hyde Park Plantation House (ca. 1798) | 19.01 |
| | Ball Family Cemetery (ca. 1764; 38BK1114) | 19.02 |
| | Slave Cemetery (ca. 1797; 38BK1115) | 19.03 |
| | Ricefields (117 acres) | 19.04 |
| | Cottage (ca. 1890) | 19.05 |
| | Archaeological Site (38BK436) | 19.06 |
| 20 | Bossis (Boss's) Plantation | |
| | Bossis House (ca. 1910) | 20.01 |
| | Oak Avenue | 20.02 |
| | Ricefields (187 acres) | 20.03 |

| # | Resources and their Contributing Elements (continued) | Survey # |
|-----------|--|----------|
| | Inland Ricefield/Reserve, "Lower Reserve" (131 acres) | 20.04 |
| 21 | Richmond Plantation | |
| | Richmond House (ca. 1927) | 21.01 |
| | Gate Lodge (ca. 1927) | 21.02 |
| | Stable/Carriage House (ca. 1927) | 21.03 |
| | Guest Cottage (ca. 1927) | 21.04 |
| | Kennel (ca. 1927) | 21.05 |
| | Log Cabin (ca. 1927) | 21.06 |
| | Playhouse (ca. 1927) | 21.07 |
| | Oak Avenue | 21.08 |
| | Ricefields (576 acres) | 21.09 |
| | Inland Ricefield/Reserve, "Upper Reserve" (204 acres) | 21.1 |
| | Formal Garden (ca. 1927) | 21.11 |
| | Cemetery (1793; 38BK52) | 21.12 |
| 22 | Bonneau Ferry | |
| | Bonneau Family Graves (38BK1121) | 22.01 |
| | Slave Grave (1857; 38BK1119) | 22.02 |
| | Inland Ricefield/Reserves (27.3 acres) | 22.03 |
| 23 | Comingtee Plantation | |
| | Comingtee Plantation House Ruins (18th c.; altered 19th c.) | 23.01 |
| | Rice Mill Ruins (18th c.) | 23.02 |
| | Underwater Archaeological Site (38BK284) | 23.03 |
| | Comingtee Creek Reserve (approx. 106 acres) | 23.04 |
| 24 | Rice Hope Plantation | |
| | Rice Hope House (ca. 1929) | 24.01 |
| | Oak Avenue | 24.02 |
| | Tenant House (late 19th-early 20th c.) | 24.03 |
| 25 | Strawberry Plantation | |
| | Strawberry Plantation House (ca. 1800) | 25.01 |
| | Slave House (mid-19th c.) | 25.02 |
| | Smokehouse (early 20th c.) | 25.03 |
| | Small Storehouse with Shed Addition (early 20th c.) | 25.04 |
| | Two Small Sheds (early 20th c.) | 25.05 |
| 26 | Strawberry Chapel and Childsbury Town | |
| | Chapel (ca. 1725) | 26.01 |
| | Cemetery (18th c.) | 26.02 |
| | Site of Childsbury Town, estab. 1707 (38BK1750) | 26.03 |
| | Archaeological Site (38BK51) | 26.04 |
| 27 | Atlantic Coast Line Railway Bridge and Trestle (ca. 1930) | |
| 28 | Taveau Church | |
| | Church (ca. 1835) | 28.01 |
| | Cemetery (19th c.) | 28.02 |
| 29 | Mepkin Plantation | |
| | Laurens Family Cemetery (1782) | 29.01 |

| # | Resources and their Contributing Elements (continued) | Survey # |
|---|---|----------|
| | Oak Avenue | 29.02 |
| | Ricefields (324 acres) | 29.03 |
| | Archaeological Site (38BK774) | 29.04 |
| | Underwater Archaeological Site (38BK48) | 29.05 |
| | Archaeological Site (38BK768) | 29.06 |
| | Forester's Lodge (ca. 1938) | 29.07 |
| | Farm Manager's House (ca. 1938) | 29.08 |
| | Pump House (ca. 1938) | 29.09 |
| | Laundry (ca. 1938) | 29.1 |
| | Formal Garden (1930s) | 29.11 |
| | Luce Family Cemetery (1940s) | 29.12 |
| | Reservoir (early 20th c.) | 29.13 |

A large portion of Akinfield Plantation as it appears on an 1803 plat is included in the district. Although no systematic archaeological survey has been performed of the plantation, site 38BK1790 has revealed nineteenth century artifacts. There is a conservation easement on a portion of the plantation donated by Nucor Steel Company. Other parts have been destroyed by the construction of the Nucor Steel Plant.

The historic district encompasses the entire Hagan Plantation as is shown on an 1803 plat. There has been no systematic archaeological survey of the entire plantation. However, the main house complex (38BK183) has been recorded as well as two underwater sites (38BK163 and 38BK604). There is conservation easement on this property donated by Nucor Steel Company.

The French Quarter Creek Canal was the only water outlet for the inland plantations of Brabant and Spring Hill. The canal is a mile and a half in length and was used to transport goods to the East Branch of the Cooper River. It is primarily intact although the lower portion outside of the district has lost its integrity.

The Huguenot Society of South Carolina Marker was placed adjacent to the French Quarter Creek Canal in 1922 and commemorates the location of the oldest Huguenot Church outside of Charleston.

The Cooper River Historic District encompasses the Blessing Plantation as it appears on an 1785 and 1786 plat and land that was added to the plantation in later acquisitions. Contributing elements include an 1834 plantation house, the Bonneau Ferry landing (38BK1267UW), and an African-American cemetery. There is a conservation easement on the property.

The contributing properties of Cherry Hill Plantation are included on a 1786 plat. They include approximately 90 acres of rice fields, an 1830s rice mill chimney, and the remains of a stationary steam engine.

The 1785 boundaries of Campvere Plantation are included in the Cooper River Historic District. An African-American cemetery (38BK1105) has been recorded on the tract. An oak avenue is located near the complex of buildings shown on a plat of that year.

The historic district contains the historical boundaries of Halidon Hill Plantation. Three archaeological sites have been recorded on the tract and include a slave settlement (38BK1735), a freedman's settlement and

workplace (38BK1736), and an African-American cemetery (38BK1106). In 1954 the owners, Mr. and Mrs. Thomas A. Huguenin moved the Quinby Plantation house four miles to Halidon Hill. Although the house has been moved, it is considered a contributing element.

The Middleburg Plantation house and commissary were designated as a National Historic Landmark in 1970. The house is believed to be the oldest surviving frame house in South Carolina and was built ca. 1697 by Benjamin Simons. Other outbuildings include a toll office, a kitchen, and a stable. The stable was completely destroyed by Hurricane Hugo and the kitchen was partially rebuilt following the hurricane. The property also contains an oak avenue, the ruins of a steam engine, 90 acres of former rice fields, and the ruins of a rice mill. There is also a slave cemetery on the property. Archaeologist Leland Ferguson and his students have worked extensively on this property. All of the site components fall within the boundaries of 38BK83. There is a conservation easement on the property.

Pompion Hill Church was designated a National Historic Landmark in 1973. The chapel occupies a high bluff overlooking the river and was historically accessed by water. The chapel cemetery contains graves dating as far back as 1754. Archaeological site 38BK166UW may represent materials deposited by parishioners disembarking from boats. There is a conservation easement on the property.

Longwood Plantation (Pompion Hill Plantation) functioned as the vestry of the parish for about 30 years before passing into private hands. Remaining historic features include 113 acres of rice fields and archaeological site 38BK891 – a scatter of historic artifacts associated with Pompion Hill Plantation. The district encompassed the late eighteenth century boundaries. There is a conservation easement on the property.

Quinby Plantation and nearby Quinby Bridge occupy the site of a Revolutionary War engagement which took place in July of 1781. The bodies of the participants killed in the nearby battle of Quinby Bridge are purported to have been buried along the road on the hill at the end of the oak avenue. The ca. 1792 plantation house was moved to Halidon Hill in 1954. According to Leland Ferguson and David Babson, the foundation of the building remain at the site and the Quinby settlement should be fairly intact. A slave cemetery (38BK1110) has been recorded and mapped. The historic district encompasses most of the acreage shown on a 1791 plat. The site is in good condition and is not threatened.

Significant features known to occur at Silk Hope Plantation include the main house complex (38BK172) and an eighteenth century brick barn. A non-contributing African-American cemetery is also located on the property. The Cooper River district excludes the portion of Silk Hope located east of SC Hwy. 402, where there has been modern development.

Limerick Plantation is located at the headwaters of the East Branch of the Cooper River. The property includes a boat landing (38BK328), an underwater site (38BK1770) in Huger Creek, an oak avenue, 100 acres of former rice fields, and the remnants of a tidal rice mill (38BK263). Data recovery excavations occurred at the main house site (38BK181/223) prior to the construction of the East Cooper and Berkeley railroad. Despite destruction of the main house, much of the historic material related to the plantation was not impacted by the railroad. The slave quarters and other buildings that appear on late eighteenth century plats were outside the construction zone. In addition, a planter's cemetery (38BK1113) is located at Limerick.

The Kensington Plantation house (38BK178) is approached by an oak avenue. It was constructed ca. 1745 and destroyed by fire in the 1920s. Surviving on the property is an overseer's house, 180 acres of former rice fields, and a slave cemetery. The Cooper River district includes all of the historic boundaries excluding the area north of SC Hwy 402 which has been altered by development. Currently, there are no known threats to the portions of Kensington Plantation within the National Register District. There is a conservation easement on this property.

Midway Reserve consists of a 150 acre inland rice reserve originally linked to Gough Creek through Kensington Plantation. Remnants of the canal system are still visible as well as the banks. Modern water control trunks and gates have replaced the originals, but the integrity of the reserve still under water control management is high. There are no known threats to the property. Note that this portion of the Cooper River District is outside of the study area, just north of Hwy 402.

The entire late eighteenth century boundaries of Hyde Park Plantation are within the National Register district. The plantation house, built ca. 1798, is still extant. Also on the property are two cemeteries, 117 acres of rice fields, and an 1890s servants cottage. Remnants of a dock and submerged barge have been recorded on Huger Creek as 38BK436.

The current house at Bossis Plantation was built ca. 1910 after a 1909 fire destroyed the original 1736 house. The house is approached by an extensive oak avenue. It is currently unoccupied and part of Mead Westvaco holdings. There are 187 acres of tidal rice fields and a 131 acre inland rice reserve. Most of the acreage included on late eighteenth century plats is within the National Register district.

Richmond Plantation was one of the largest plantations on the East Branch. A large inland rice reserve containing 204 acres is on the property, as well as the Harleston-Rutledge Cemetery. An avenue of oaks and 576 acres of ricefields also contribute to the historic district. In 1927 several buildings were constructed as part of a hunting retreat. They include a brick main house, a gate lodge, guest cottage, dog kennel, and carriage house/stable. Other buildings include a playhouse and a one story log cabin. A formal garden from this time period also contributes to the historic district. In 1963, 153 acres including the main house and other buildings, was sold to the present owners, the Carolina Low Country Girl Scout Council. The house, outbuildings, and cemetery were listed on the National Register in 1980. The historic district encompasses the entire late eighteenth century property.

Bonneau Ferry Plantation included the ferry that crossed the East Branch just north of the Tee. The late eighteenth century graves of Samuel and Mary Bonneau and a slave named Isaac are located on the property. In addition there are approximately 27 acre of inland rice fields along Mayrants lead, just north of the ferry. The district encompasses most of the acreage historically associated with Bonneau Ferry Plantation and includes the historic properties described above. The plantation was purchased by SCDNR and the Conservation Fund as a preserve.

Comingtee Plantation is located at the Tee of the East and West Branches of Cooper River. The property contains the ruins of a main house, a ruined rice mill building, and 106 acres of inland rice reserves. An underwater archaeological site (38BK284) is located directly in front of the Comingtee Rice Mill and consists of a scatter of eighteenth and nineteenth century artifacts. The district encompasses more of the historic boundaries of Comingtee Plantation. It also encompasses Fish Pond Plantation, which was consolidated with Comingtee in the early twentieth century. SCDNR and the Conservation Fund have purchased this plantation as a preserve which will include the Comingtee main house and rice mill.

Rice Hope Plantation contains an early twentieth century house on the high bluff above the Cooper River where it is likely that an earlier plantation house was positioned. The old rice banks and fields have been restored and a late nineteenth century tenant house is located on the property. Part of the plantation has been subdivided, but most of what was used in the production of rice and later as a hunting preserve remains intact. There are no known threats to the plantation.

Strawberry Plantation contains a ca. 1800 frame plantation house. Also on the property is a nineteenth century slave house, smokehouse, storehouse and two small sheds dating to the early twentieth century. The original boundaries of Strawberry Plantation have not been identified, but the district encompasses the contributing properties described above.

Strawberry Chapel and Childsbury Town are located on what eventually became Rice Hope and Strawberry Plantations. The chapel was constructed ca. 1725 and is the last visible remains of the town, which was laid out in 1707. The chapel has a cemetery with graves dating as early as 1748 with names including Ball, Stoney, Simons, Waring, Prioleau, and Harleston. The site of Childsbury Town (38BK1750) contains significant archaeological remains including a "commercial district", a public landing, a brickyard and clay borrow pit, a rice dike, and the remains of a fortification. The town, chapel, and cemetery were listed together in the National Register in 1972. In 2001, 90 acres of the 157.5 acre site, including the chapel, cemetery, and town site, were acquired by the Heritage Trust Program of the SCDNR. Some of the additional acreage falls within the 10,697 acre property recently acquired by SCDNR and the Conservation Fund.

Also associated with this complex is site 38BK51 which encompasses approximately 500 meters of river bottom at Strawberry Ferry. The site has been popular among hobby divers who routinely find fossils, bottles, and Colonoware pottery.

The Atlantic Coast Line Railway Bridge and Trestle was constructed ca. 1930 for the Atlantic Coast Line Railway. The bridge and trestle is currently maintained and operated by CSX Transportation and crosses the West Branch of the Cooper River from the Bluff Plantation and enters the historic district just north of Childsbury and just south of Mepkin Plantation.

Taveau Church was constructed ca. 1835 for Martha Caroline Swinton Taveau. After her death in 1847 it was used by a black Methodist congregation. The church cemetery contains markers that date to the mid twentieth century though it is believed to have been used since the late nineteenth century. Taveaux is presently owned by Mepkin Abbey and was listed in the National Register in 1978.

Mepkin Plantation was the home of Henry Laurens who was one of the wealthiest men in America prior to the Revolution. Lauren died at Mepkin in 1792 and is buried in the family cemetery there. Stones in the cemetery date from 1872 to 1820. During the Laurens family occupation and extensive oak avenue was planted and more than 500 acres of rice fields constructed (324 acres still survive). Archaeological site 38BK774 is located within the Mepkin complex and consists of a scatter of eighteenth and nineteenth century material that was formerly a rice field. A boat landing (38BU48) at Mepkin contains a shipwreck. Just north of Mepkin Creek is 38BK768 which contains a nineteenth century rice barge in an old rice field.

In 1936 the Mepkin property was purchased by *Time and Life* publisher Henry Luce and his wife, author Claire Booth Luce. They built several international-style buildings on the property. Surviving buildings include a forester's lodge, a laundry building, a pump house, and farm manager's house. The property also

includes a contributing twentieth century reservoir. In 1930 the Luces commissioned a formal garden by noted landscape architect Loutrel Brigs. The garden contains the Luce family cemetery with four markers dating to the 1940s. They donated the 3,200 acre property to Trappist monks of the Cistercian Order in the 1960s. A monastery was then established there known as Mepkin Abbey. There are no known threats to the property.

STANDING STRUCTURES

A total of 16 structures and features were recorded by the 1989 Berkeley County survey that were either listed on the National Register of Historic Places or were National Historic Landmarks (NHL), or were recommended as eligible or potentially eligible for the National Register of Historic Places. Subsequently, the Cooper River Historic District nomination listed 15 of those 16 structures/features. All of these listed structures are encompassed by the Cooper River Historic District and have been previously discussed. The Hagan/Moreland Plantation was recommended as potentially eligible. It is on Nucor Steel property and is protected by a conservation easement. The Blessing Plantation boathouse was listed as potentially eligible in 1989. It was subsequently destroyed by Hurricane Hugo and is not included in this study. Table 2 provides a list of those structures and features identified during the 1989 survey that are believed to have survived the hurricane. Figure 8 shows the locations of these properties.

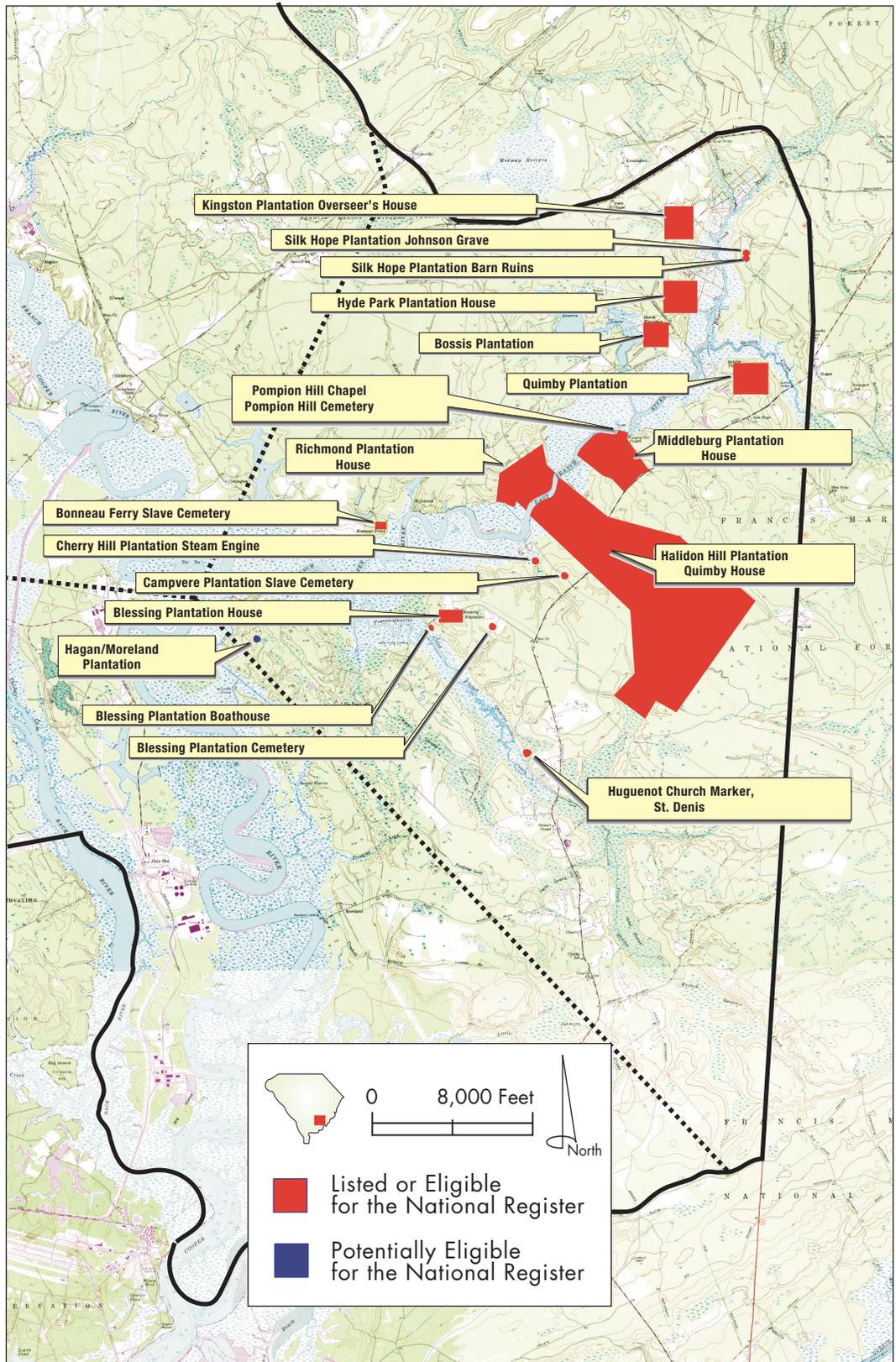
ARCHAEOLOGICAL SITES

Within the East Branch region, there are 63 recorded archaeological sites. A number of these which occur in the Cooper River National Register District as contributing properties have already been discussed. Of the 63 sites, 32 are listed on the National Register of Historic Places, either individually or as contributing to a district. Four sites are listed as potentially eligible for the National Register. All four are historic sites dating from the eighteenth to the twentieth centuries. One site is listed as having been excavated and subsequently destroyed. Eight sites have been recommended as not eligible for the National Register. The remaining 18 sites are listed in the state site files as "unknown", meaning their eligibility has never been assessed. Table 3 provides a summary of those sites that have been listed on the register or are potentially eligible. Their locations are illustrated in Figure 9.

CEMETERIES

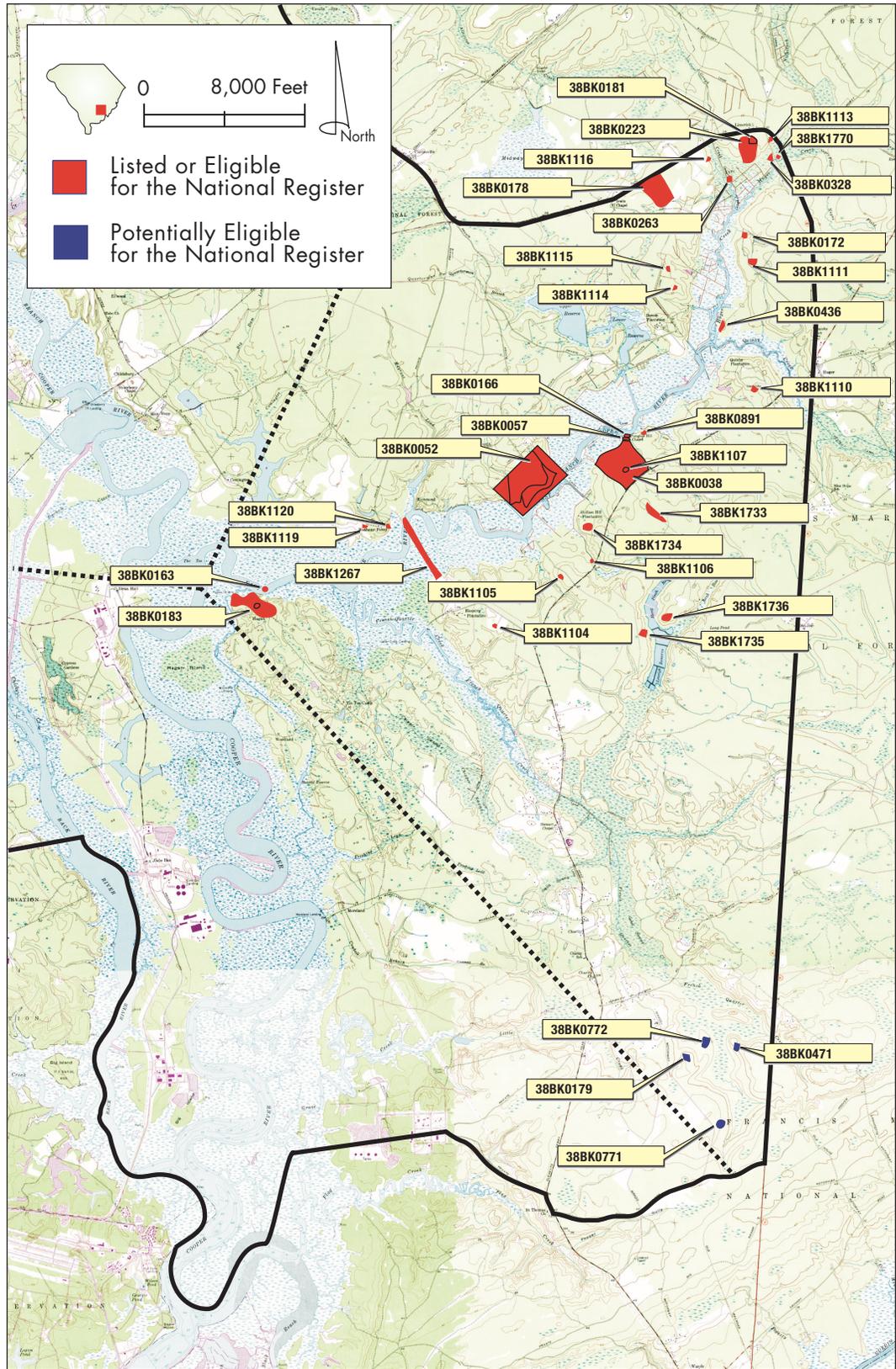
A total of 20 cemeteries have been recorded in the East Branch region by the South Carolina Genealogical Society (1995), in Connor (1989), and on USGS topographic maps (see Table 4; Figure 10). This, by no means, constitutes all cemeteries within this region. Of these, 14 are listed in the National Register under the Cooper River National Register District. Two have been assessed as not eligible, and the eligibility of the remaining four is unknown. Regardless of their National Register status, all cemeteries are protected by State law.

Figure 8
 Locations of Significant Standing Structures Examined by
 Preservation Consultants in 1989, East Branch of the Cooper River Valley



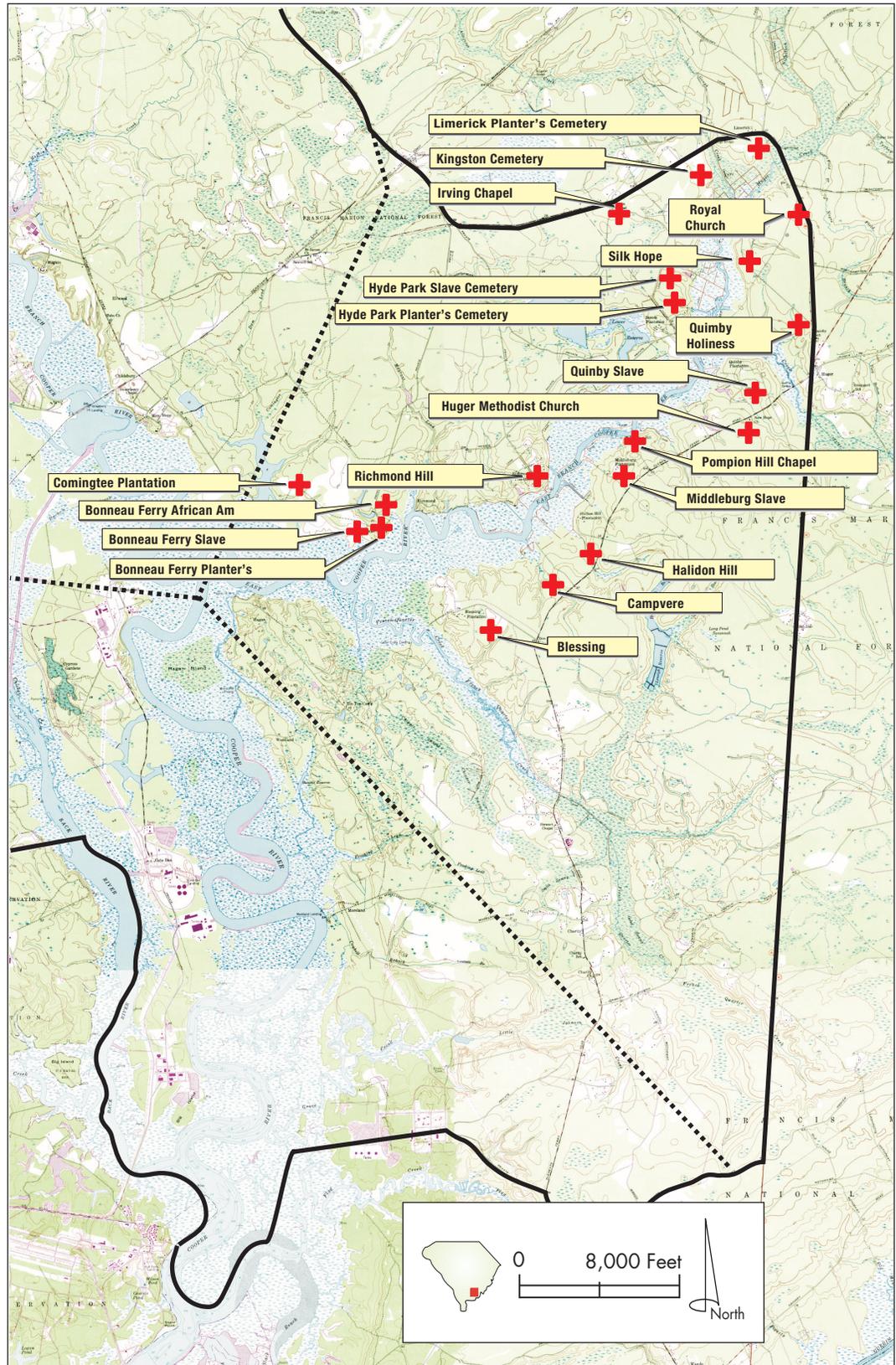
Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads: Cordesville 1948 (PR1979), Betheria 1948, Kittredge 1950 (PR1979), Huger 1950 (PR1971), Cainhoy 1958 (PR 1971)

Figure 9
Locations of Archaeological Sites Listed, Eligible or Potentially Eligible
in the East Branch of the Cooper River Valley



Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Cordesville 1948 (PR1979), Bethera 1948, Kittredge 1950 (PR1979), Hunter 1950 (PR1971), Collier 1959 (PR1971)

Figure 10
Locations of Recorded Cemeteries in the
East Branch of the Cooper River Valley



Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Cordesville 1948 (PR1979),
Bethera 1948, Kittredge 1950 (PR1979), Huger 1950 (PR1971), Cainhoy 1958 (PR 1971)

Table 2. National Register Listed and Potentially Eligible Standing Structures in the East Branch Region as recorded by the Berkeley County 1989 Survey.

| Site # | Name | NRHP | Period | Protection/Theats |
|-------------|--|------------------------------|--------------|-----------------------|
| 239 0016.00 | Kensington Plantation Overseer's House | Listed | c. 1830 | Conservation Easement |
| 239 0018.00 | Hyde Park Plantation House | Listed | c. 1798 | |
| 239 0019 | Bossis Plantation | Listed | c. 1910 | |
| 239 0020.00 | Richmond Plantation House | Listed | 1930 | |
| 239 0021.00 | Silk Hope Plantation Barn Ruins | Listed | 19th century | |
| 239 0021.01 | Silk Hope Plantation Johnson Grave | Listed | 1713 | |
| 239 0026.00 | Halidon Hill Plantation Quinby House | Listed | c. 1792 | |
| 239 0028 | Cherry Hill Plantation Steam Engine | Listed | c. 1800 | |
| 239 0029.00 | Blessing Plantation House | Listed | 1834 | Conservation Easement |
| 239 0029.01 | Blessing Plantation Cemetery | Listed | 19th century | Conservation Easement |
| 274 0010 | Bonneau Ferry Slave Cemetery | Listed | 19th century | |
| 239 0027 | Campvere Plantation Slave Cemetery | Listed | 19th century | |
| 239 0024.00 | Pompion Hill Chapel | Listed; Nat. Historic Ldmrk. | c. 1763 | |
| 239 0024.01 | Pompion Hill Chapel Cemetery | Listed; Nat. Historic Ldmrk. | c. 1754 | |
| 239 0025.00 | Middleburg Plantation House | Listed; Nat. Historic Ldmrk. | c. 1697 | |
| 274 0011 | Hagan/Moreland Plantation | Potentially Eligible | 19th century | Conservation Easement |

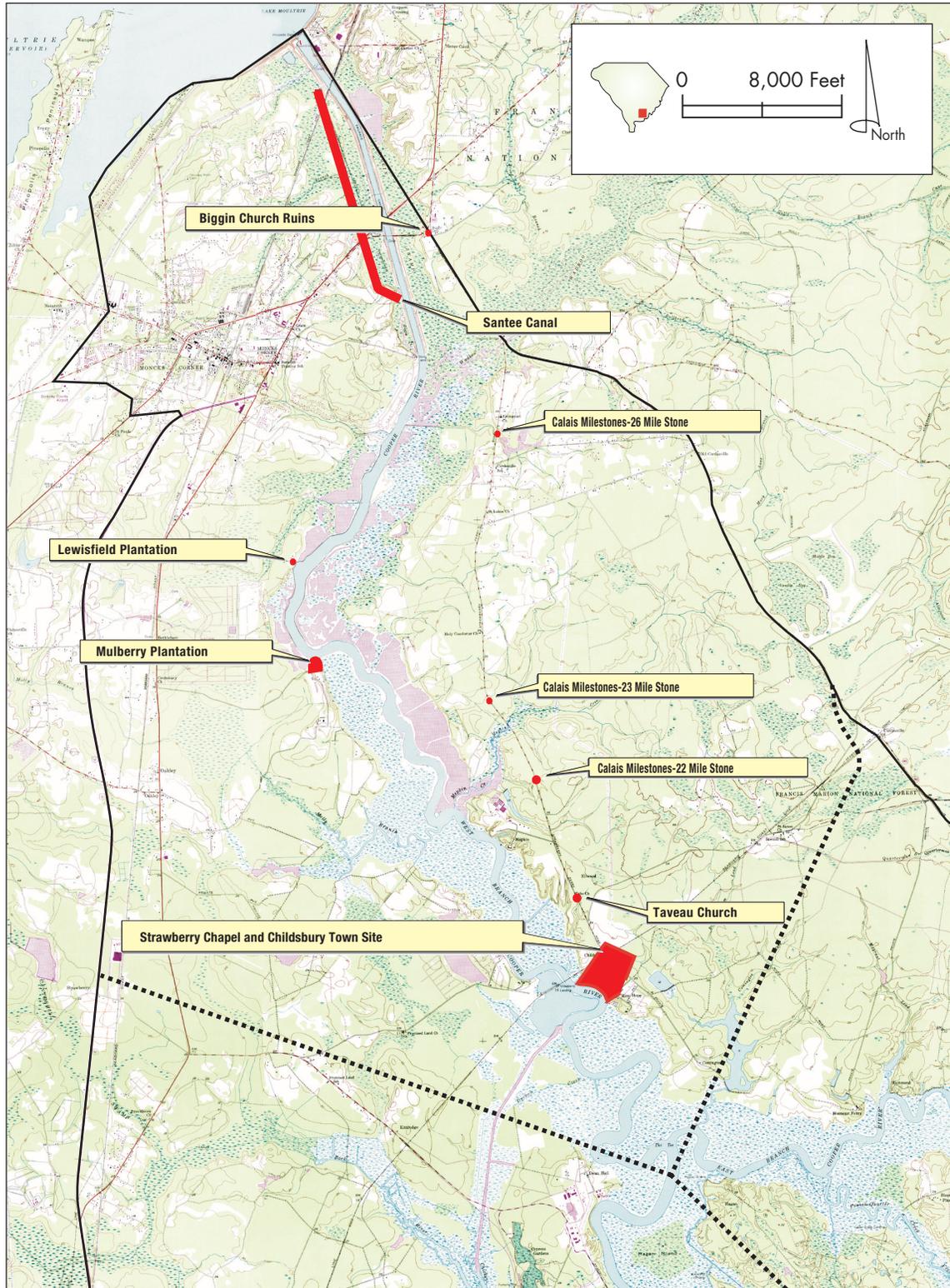
UPPER WEST BRANCH

The Upper West Branch is defined within the study area by river drainage patterns starting at the Tee (or confluence of the East and West Branches of the Cooper River). The boundary follows Comingtee Creek and then continues northeast to Cordesville. It then heads north along Hwy. 402, crossing US Hwy 52, then roughly following the Tailrace Canal to where it empties into Lake Moultrie. The boundary then follows the lake shore to the southwest and then turns south near an old railroad grade, wrapping around the west side of the Town of Moncks Corner. It then follows the alignment of US Hwy 52 to Strawberry, and then southeast back to the Tee.

NATIONAL REGISTER SITES

Within the Upper West Branch area, there are nine National Register properties. Two of these (Strawberry Chapel/Childsbury Town and Taveau Church) have been previously discussed as a part of the Cooper River National Register District and will not be further elaborated on here. In addition, the significance of the Road to Calais has also been previously discussed. Calais Milestones 22, 23, and 26 occur within the Upper West Branch area. The remaining National Register properties include Mulberry Plantation, the Santee Canal, Lewisfield Plantation, and Biggin Church Ruins (see Table 5 and Figure 11).

Figure 11
Locations of National Register Listed Properties in the
Upper West Branch of the Cooper River Valley



Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Moncks Corner 1958 (PR1979), Cordesville 1948 (PR1979), Mt. Holly 1957 (PR1979), Kittredge 1950 (PR1979)

Table 3. National Register Listed and Potentially Eligible Archaeological Sites in the East Branch Region.

| Site # | NRHP | Component | Comments | Protection/Threats |
|----------|----------------------|--|--|-----------------------------------|
| 38BK0038 | Listed | Middle Archaic, 18th, 19th, and 20th c. | Middleburg Plantation | NHL Status; Conservation Easement |
| 38BK0052 | Listed | Woodland and Unknown Prehistoric | Richmond Plantation/Girl Scout Plantation | |
| 38BK0057 | Listed | Unknown Historic | Pompion Hill Chapel | NHL Status |
| 38BK0163 | Listed | Unknown Historic | underwater site at Hagan Plantation | |
| 38BK0166 | Listed | Unknown Historic | Pompion Hill Chapel, underwater site | |
| 38BK0172 | Listed | 19th c. | Silk Hope Plantation | |
| 38BK0178 | Listed | 18th and 19th c. | Kensington Plantation main house | Conservation Easement |
| 38BK0181 | Listed | 18th and 19th c. | Limerick Plantation main house; also 38BK223 | |
| 38BK0183 | Listed | 17th and 18th c. | Hagan Plantation | |
| 38BK0223 | Listed | 19th and 20th c. | Limerick Plantation main house; also 38BK181 | |
| 38BK0263 | Listed | 18th c. | Limerick Plantation tidal rice mill | |
| 38BK0328 | Listed | 18th and 19th c. | Limerick Plantation boat landing | |
| 38BK0436 | Listed | Unknown Prehistoric, 16th, 17th, and 18th c. | Hyde Park submerged rice barge | |
| 38BK0891 | Listed | Unknown Prehistoric, 18th and 19th c. | Pompion Hill Plantation | |
| 38BK1104 | Listed | Unknown Historic and 20th c. | Blessing Plantation Cemetery | |
| 38BK1105 | Listed | Unknown Historic and 20th c. | Campvere Plantation African-Am Cemetery | |
| 38BK1106 | Listed | Unknown Historic and 20th c. | Halidon Hill African-Am Cemetery | |
| 38BK1107 | Listed | Unknown Historic, 19 th ; 20th c. | Middleburg Plantation Cemetery | Conservation Easement |
| 38BK1110 | Listed | Unknown Historic and 20th c. | Quinby Plantation African-Am Cemetery | |
| 38BK1111 | Listed | 18th c. | Silk Hope Plantation Cemetery | |
| 38BK1113 | Listed | 18th and 19th c. | Limerick Plantation Planter's Cemetery | Managed by USFS |
| 38BK1114 | Listed | 18th and 19th c. | Hyde Park Planters Cemetery | |
| 38BK1115 | Listed | 19th c. | Hyde Park Slave Cemetery | |
| 38BK1116 | Listed | 19th c. | Kensington Plantation Cemetery | |
| 38BK1119 | Listed | Unknown Historic and 19th c. | Bonneau Plantation Slave Cemetery | |
| 38BK1120 | Listed | Unknown Historic and 20th c. | Bonneau Plantation Planter Cemetery | |
| 38BK1267 | Listed | Unknown Historic, 19 th c.; 20th c. | Bonneau Ferry Landing, underwater | |
| 38BK1733 | Listed | 19th and 20th c. | | |
| 38BK1734 | Listed | 18th and 19th c. | Halidon Hill Slave Settlement | |
| 38BK1735 | Listed | 18th c. | Smoky Hill Settlement | |
| 38BK1736 | Listed | 18th and 19th c. | Loch Lomond Settlement | |
| 38BK1770 | Listed | Unknown Prehistoric; 17th, 18th, 19th, and 20th c. | Limerick Plantation underwater site | Managed by USFS |
| 38BK0179 | Potentially Eligible | 18th c. | | |
| 38BK0471 | Potentially Eligible | 20th c. | | |
| 38BK0771 | Potentially Eligible | 18th and 19th c. | | |
| 38BK0772 | Potentially Eligible | 18th and 19th c. | | |

Table 4. Recorded Cemeteries Within the East Branch of Cooper River Region.

| Name | Site Number | NRHP | Protection/Threats |
|-----------------------------|-------------|--------------|-----------------------------------|
| Blessing | 38BK1104 | Listed | Conservation Easement |
| Bonneau Ferry African-Am | 38BK1120 | Unknown | |
| Bonneau Ferry Planter | 38BK1121 | Listed | |
| Bonneau Ferry Slave | 38BK1119 | Listed | |
| Campvere | 38BK1105 | Listed | |
| Comingtee Plantation | | Unknown | |
| Hallidon Hill | 38BK1106 | Listed | |
| Huger Methodist Church | 38BK1109 | Not Eligible | |
| Hyde Park Planters Cemetery | 38BK1114 | Listed | |
| Hyde Park Slave Cemetery | 38BK1115 | Listed | |
| Irvin Chapel | 38BK1117 | Unknown | |
| Kensington Cemetery | 38BK1116 | Listed | |
| Limerick Planter Cemetery | 38BK1113 | Listed | |
| Middleburg Slave | 38BK1107 | Listed | NHL Listed; Conservation Easement |
| Pompion Hill Chapel | 38BK0057 | Listed | NHL Listed; Conservation Easement |
| Quimby Holiness | | Unknown | |
| Quinby Slave | 38BK1110 | Listed | |
| Richmond Hill | 38BK0052 | Listed | |
| Royal Church | 38BK1112 | Not Eligible | |
| Silk Hope | 38BK1111 | Listed | |

Mulberry Plantation house is a National Historic Landmark. The brick house was built sometime between 1714 and 1725. The house and the immediate yard area is on the National Register and the plantation is under a conservation easement administered by Historic Charleston Foundation. It was excellently restored in 1915 and commands an impressive view of the West Branch and the old rice fields.

The Santee Canal was constructed primarily by slave labor between 1793 and 1800 to connect the Santee and Cooper Rivers. The northern portion of the 22 mile long canal is the most intact and contains remnants of locks, a deteriorated steam engine, and tow paths. Santee Cooper has developed a portion of the canal into a public park. Although only the canal itself is listed on the National Register, there are a number of significant or potentially significant archaeological sites located on adjacent property administered by them. They are responsible for the protection of those sites.

Lewisfield Plantation house was constructed ca. 1774. The two and a half story four square clapboard house was also the site of a Revolutionary War skirmish. Directly in front of the house, Colonel Wade Hampton surprised British forces and captured 78 prisoners. His troops also burned several boats loaded with supplies. There are no known threats.

Biggin Church was initially constructed in 1711, but burned down in 1755. It was rebuilt, but damaged during the American Revolution and again during the Civil War. Both times it was repaired. The church burned down again in the late 1800s and currently exists as a ruin. There are no known threats.

Table 5. National Register Listed Properties in the Upper West Branch of Cooper River.

| Name | Date | Protection/Threats |
|--|-------------|---|
| Strawberry Chapel and Childsbury Town Site | 1725 | in Cooper River District; SCDNR Heritage Preserve |
| Mulberry Plantation | 1714 | Conservation Easement |
| Santee Canal | 1800 | State leased/owned land |
| Lewisfield Plantation | c. 1774 | |
| Biggin Church Ruins | 1761 | |
| Calais Milestone-22 Mile Stone | 1790 | |
| Calais Milestones-23 Mile Stone | 1790 | |
| Calais Milestones- 26 Mile Stone | 1790 | |
| Taveau Church | c. 1835 | in Cooper River District; managed by Mepkin Abbey |

STANDING STRUCTURES

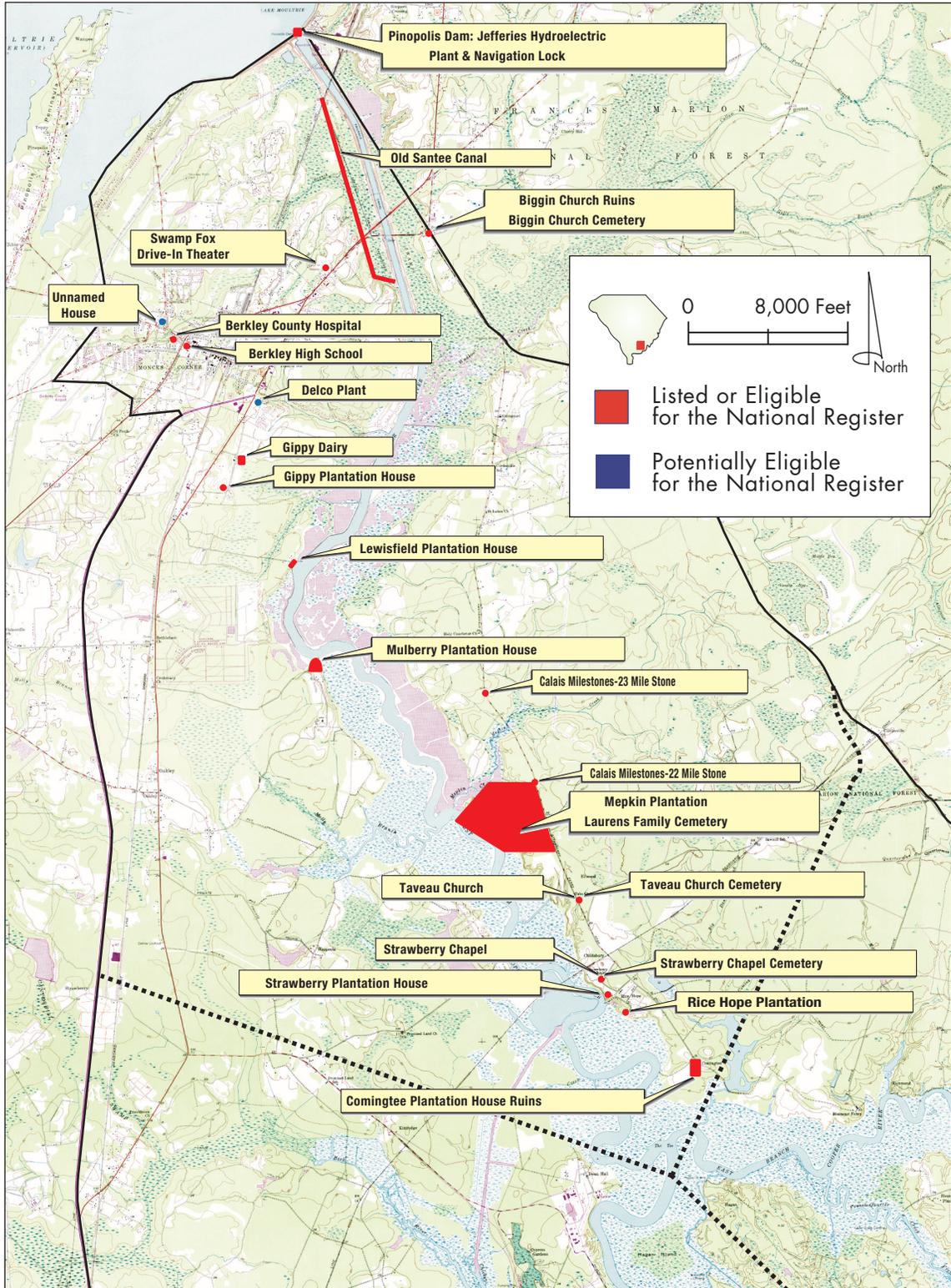
A total of 98 standing structures and features have been recorded in the Upper West Branch area. Of those, eight are listed as contributing elements to the Cooper River Historic District and have been previously discussed. Outside of the Cooper River district, the Old Santee Canal has been listed. The Santee Canal has also been previously discussed. It is under the management of Santee Cooper. Mulberry Plantation is a National Historic Landmark.

Another seven structures have been recommended as eligible, but have never been listed. They include the Comingtee Plantation House Ruins (nineteenth century), the Berkeley County Hospital (1939), Berkeley County High School (1929), the Swamp Fox Drive in Theatre (ca. 1955), the Pinopolis Dam: Jeffries Hydroelectric Plant and Navigation Lock (1939), Gippy Plantation House (1852), and Gippy Dairy Plant (c. 1932). Two structures, an un-named house and the Delco Plant, were listed as potentially eligible. The remaining structures which were surveyed have been recommended as not eligible for inclusion in the National Register of Historic Places. National Register listed, eligible, and potentially eligible structures and features are shown in Figure 12 and listed in Table 6.

ARCHAEOLOGICAL SITES

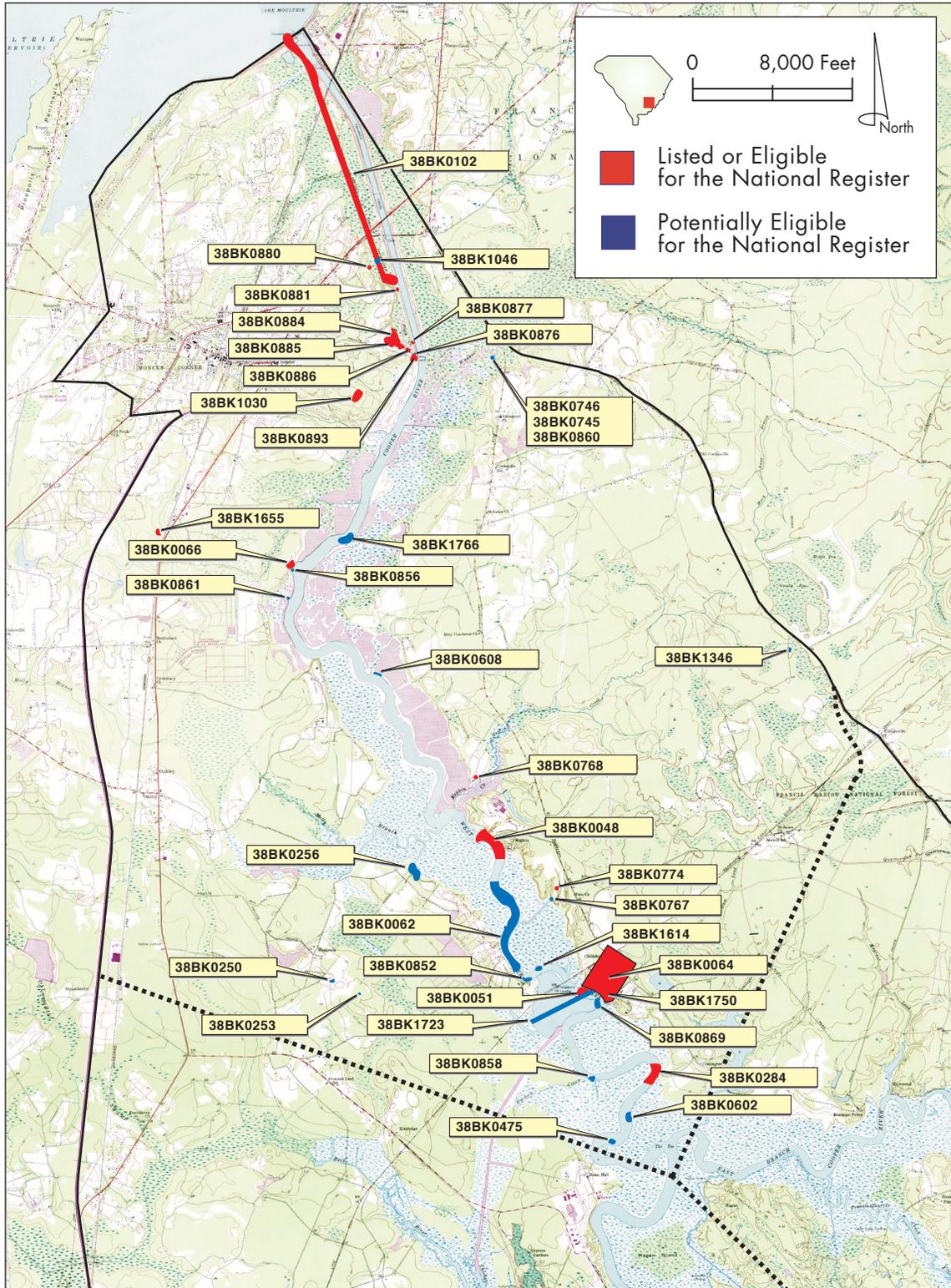
Of the 82 archaeological sites identified in the Upper West Branch, nine are listed on the National Register individually or contributing to a district. These have been previously discussed. Nine sites have been recommended as eligible for the National Register, but have not yet been listed. Twenty two sites are listed as potentially eligible for the National Register. Twenty sites have been recommended as not eligible and the eligibility of another 22 sites has never been assessed. Listed, eligible, and potentially eligible sites are shown in Figure 13 and are listed on Table 7.

Figure 12
 Locations of Significant Standing Structures Examined by
 Preservation Consultants in 1989, Upper West Branch of the Cooper River Valley



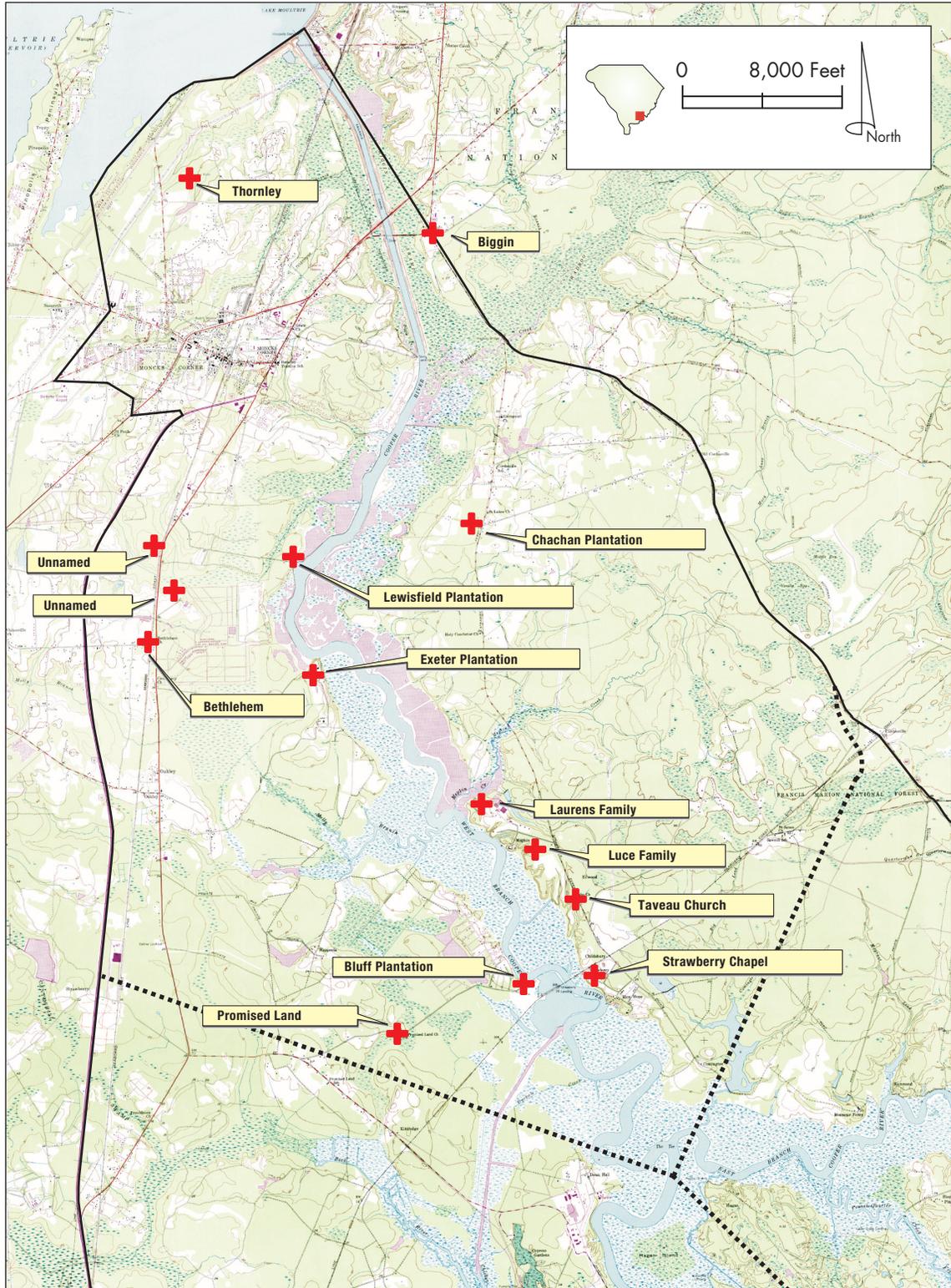
Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Moncks Corner 1958 (PR1979), Cordesville 1948 (PR1979), Mt. Holly 1957 (PR1979), Kittredge 1950 (PR1979)

Figure 13
Locations of Archaeological Sites Listed, Eligible or Potentially Eligible
in the Upper West Branch of the Cooper River Valley



Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Moncks Corner 1958 (PR1979), Cordesville 1948 (PR1979), Mt. Holly 1957 (PR1979), Kittredge 1950 (PR1979)

Figure 14
Locations of Recorded Cemeteries in the Upper West Branch
of the Cooper River Valley



Source: Dept. of Natural Resources, Berkeley County; South Carolina, Quads; Moncks Corner 1958 (PR1979), Cordesville 1948 (PR1979), Mt. Holly 1957 (PR1979), Kittredge 1950 (PR1979)

Site 38BK1030 consist of the Revolutionary War redoubt at Fairlawn Plantation and has been recommended as eligible for the National Register. The site is reportedly in very good condition, however, it has been under attack from relic hunters (Poplin and Chapman 1990).

Table 6. National Register Listed, Eligible and Potentially Eligible Standing Structures in the Upper West Branch Region as recorded by the Berkeley County 1989 Survey.

| Site # | Name | NRHP | Period | Protection/Threats |
|-------------|---|----------------------------|--------------|-------------------------|
| 110 0042 | Swamp Fox Drive-In Theatre | Eligible | c. 1955 | |
| 339 0039 | Berkeley County Hospital | Eligible | 1939 | |
| 339 0058 | Berkeley High School | Eligible | 1929 | |
| 110 0046 | Pinopolis Dam: Jeffries Hydroelectric Plant & Navigation Lock | Eligible | 1939 | |
| 274 0009.00 | Comingtee Plantation House Ruins | Eligible | 19th century | |
| 339 0033.00 | Gippy Dairy Plant | Eligible | c. 1930 | |
| 339 0032 | Gippy Plantation | Eligible | 1852 | |
| 110 0017.01 | Biggin Church Cemetery | Listed | c. 1715 | |
| 110 0017.00 | Biggin Church Ruins | Listed | 1756 | |
| 274 0007.00 | Strawberry Chapel | Listed | c. 1725 | |
| 274 0007.01 | Strawberry Chapel Cemetery | Listed | 18th century | |
| 274 0004 | Twenty Three Mile Stone | Listed | c. 1783 | |
| 274 0017 | Twenty Two Mile Stone | Listed | c. 1783 | |
| 110 0001.00 | Lewisfield Plantation House | Listed | c. 1774 | |
| 136 0011 | Old Santee Canal | Listed | 1786 | State leased/owned land |
| 274 0005.00 | Mepkin Plantation Laurens Family Cemetery | Listed | 1782 | |
| 274 0008 | Rice Hope Plantation | Listed | 1929 | |
| 110 0044.00 | Mulberry Plantation House | National Historic Landmark | 1711 | Conservation Easement |
| 339 0115 | Delco Plant | Potentially Eligible | c. 1910 | |
| 339 0053 | Unnamed House | Potentially Eligible | c. 1890 | |

CEMETERIES

A total of 14 cemeteries have been recorded in the Upper West Branch region by the South Carolina Genealogical Society (1995), in Connor (1989), and on USGS topographic maps (see Table 8; Figure 14). This, by no means, constitutes all cemeteries within this region. Of these, two are listed in the National Register (Taveau Church and Lewisfield). One unnamed cemetery (38BK1665) has been recommended as potentially eligible. The eligibility of the remaining cemeteries is unknown. Regardless of their National Register status, all cemeteries are protected by State law.

Table 7. National Register Listed, Eligible, and Potentially Eligible Archaeological Sites in the Upper West Branch Region.

| Site # | NRHP | Component | Comments | Protection/Threats |
|----------|----------------------|--|--|-------------------------|
| 38BK0048 | Listed | 18th and 19th c. | wrecked boat at Mepkin Plantation | |
| 38BK0051 | Listed | 18th, 19th c. | underwater site at Strawberry Ferry | |
| 38BK0062 | Potentially Eligible | Unknown Prehistoric; 17th, 18th, and 19th c. | | |
| 38BK0064 | Listed | 18th c. | Strawberry Chapel | State leased/owned land |
| 38BK0066 | Listed | 18th c. | Lewisfield Plantation | |
| 38BK0102 | Listed | 18th c. | Santee Canal | State leased/owned land |
| 38BK0250 | Potentially Eligible | 20th c. | | |
| 38BK0253 | Potentially Eligible | 18th c. | Bushy Park Tar Kiln | |
| 38BK0256 | Potentially Eligible | 19th c. | Point Comfort Plantation | |
| 38BK0284 | Listed | 18th and 19th c. | Underwater site by Comingtee Rice Mill | |
| 38BK0475 | Potentially Eligible | Unknown Historic | | |
| 38BK0602 | Potentially Eligible | Woodland; Unknown Prehistoric; 18th, 19th, and 20th c. | | |
| 38BK0608 | Potentially Eligible | Woodland; 18th, 19th, and 20th c. | | |
| 38BK0745 | Potentially Eligible | 19th c.; Unknown Historic | | State leased/owned land |
| 38BK0746 | Potentially Eligible | 18th, 19th, and 20th c. | | State leased/owned land |
| 38BK0767 | Potentially Eligible | 19th c. | | |
| 38BK0768 | Listed | 19th c. | site at Mepkin Plantation | |
| 38BK0774 | Listed | 18th, 19th, and 20th c. | underwater site at Mepkin Plantation | |
| 38BK0852 | Potentially Eligible | Unknown Prehistoric; 18th, 19th, and 20th c. | | |
| 38BK0856 | Potentially Eligible | 18th, 19th, and 20th c. | | |
| 38BK0858 | Potentially Eligible | 19th c. | | |
| 38BK0860 | Potentially Eligible | 18th c. | | State leased/owned land |
| 38BK0861 | Potentially Eligible | 18th c. | | |
| 38BK0869 | Potentially Eligible | 18th c. | Strawberry Landing Wreck | |
| 38BK0876 | Potentially Eligible | Unknown Prehistoric; 18th, 19th, and 20th c. | | State leased/owned land |
| 38BK0877 | Eligible | 19th c. | Biggin Creek Ship Site | State leased/owned land |
| 38BK0880 | Eligible | 19th c. | | State leased/owned land |
| 38BK0881 | Eligible | 19th c. | | State leased/owned land |
| 38BK0884 | Eligible | Middle and Late Woodland; 19th and 20th c. | Stony Landing Overseers Site | State leased/owned land |

| | | | | |
|----------|----------------------|--|-------------------------------------|---------------------------|
| 38BK0885 | Eligible | 19th and 20th c. | Industrial Site | State leased/owned land |
| 38BK0886 | Eligible | 19th and 20th c.; Unknown Historic | | State leased/owned land |
| 38BK0893 | Eligible | 19th and 20th c. | Stony Landing Plantation Main House | State leased/owned land |
| 38BK1030 | Eligible | 18th c. | Fairlawn Plantation Redoubt | Threatened by pot hunting |
| 38BK1046 | Potentially Eligible | 18th and 19th c. | Santee Canal Lock | State leased/owned land |
| 38BK1346 | Potentially Eligible | Late Archaic | | managed by USFS |
| 38BK1614 | Potentially Eligible | Unknown Historic | | |
| 38BK1655 | Potentially Eligible | 19th and 20th c. | | |
| 38BK1723 | Eligible | Unknown Historic | | |
| 38BK1750 | Listed | Mississippian; 17th and 18th c. | Childsbury Town | managed by SCDNR |
| 38BK1766 | Potentially Eligible | Paleoindian; E/M/L Archaic; Early /Middle Woodland; Miss; 18th and 19th c. | | |

Table 8. Recorded Cemeteries Within the Upper West Branch of Cooper River Region.

| Name | Site Number | NRHP | Protection/Threats |
|-----------------------|-------------|----------------------|-----------------------|
| Bethlehem | | Unknown | |
| Biggin | | Unknown | |
| Bluff Plantation | | Unknown | |
| Chachan Plantation | | Unknown | |
| Exeter Plantation | | Unknown | Conservation Easement |
| Laurens Family | | Unknown | |
| Lewisfield Plantation | 38BK0066 | Listed | |
| Luce Family | | Unknown | |
| Promised Land | | Unknown | |
| Strawberry Chapel | | Unknown | |
| Taveau | | Listed | |
| Thornley | | Unknown | |
| Unnamed | 38BK1655 | Potentially Eligible | |
| Unnamed | | Unknown | |

LOWER WEST BRANCH

The Lower West Branch is defined within the study area by river drainage patterns starting at the Tee (or confluence of the East and West Branches of Cooper River). The boundary follows the center of a ridge dividing French Quarter Creek and the main channel of the Cooper River down to Hwy. 41 near St. Thomas Chapel. The boundary then heads west to the north of and parallel to Flagg Creek. It then turns north up the Back River and then heads west again just north of the US Naval Weapons Station to US Hwy 52. It then heads north up US Hwy 52 to Strawberry. Then it turns east-south east and heads directly to the Tee.

NATIONAL REGISTER SITES

Three properties are listed on the National Register of Historic Places: White Church, Medway, and the Otranto Indigo Vats (Figure 15). White Church (aka. St. Thomas & Denis Episcopal Church) dates to 1819 and is listed for the church as well as the cemetery which dates to 1782. The existing church was built to replace one that burnt down. In 1876 it was the site of the “Cainhoy Massacre” riot when whites from Charleston journeyed to Cainhoy to break up a “Negro Republican” meeting. Five whites and one black were killed, when the meeting attendants fired on the intruders with guns they were reportedly hiding in a vault in the churchyard. The church is just outside of the study area, but is close enough that it should be mentioned.

Medway Plantation dates to 1686 and is the oldest house of record in South Carolina. Several additions have occurred including a second story, two wings on the river front, and one unsymmetrical wing built out toward the avenue. These occurred during the latter half of the nineteenth century. The plantation is protected by a conservation easement held by Historic Charleston Foundation.

The Otranto Plantation Indigo Vats consist of two end to end brick vats and date to about 1760. The vats were moved from Otranto Plantation to their current location for their protection and are the only extant vats known to exist in South Carolina.

Table 9. National Register Listed Properties in the Lower West Branch of Cooper River.

| Name | Date | Protection/Threats |
|--|-------------------------------|-----------------------|
| White Church/St. Thomas & St. Denis Episcopal Church | 1819 | |
| Medway | 1686 | Conservation Easement |
| Otranto Plantation Indigo Vats | Late 18 th century | |

STANDING STRUCTURES

The 1989 standing structure survey listed six structures or elements within the Lower West Branch area as significant or potentially significant (Figure 16; Table 10). Only one of these is not listed on the National Register of Historic Places. Cypress Gardens has been listed as potentially eligible. This 162 acre park was developed in 1910 from the former rice fields of Dean Hall Plantation.

Table 10. National Register Listed and Potentially Eligible Standing Structures in the Lower West Branch Region as recorded by the Berkeley County 1989 Survey.

| Name | NRHP | Period | Protection/Threats |
|--|----------------------|---------|-----------------------|
| Otranto Plantation Indigo Vats | Listed | c. 1760 | |
| St. Thomas & St. Denis Episcopal Church | Listed | c. 1819 | |
| St. Thomas & St. Denis Episcopal Church Cemetery | Listed | c. 1782 | |
| St. Thomas & St. Denis Episcopal Church Vestry | Listed | c. 1819 | |
| Medway Plantation House | Listed | c. 1705 | Conservation Easement |
| Cypress Gardens | Potentially Eligible | c. 1910 | Conservation Easement |

This page has been intentionally left blank due to the oversized figure on next page.

Figure 15. Location of National Register Listed Properties in the Lower West Branch of the Cooper River Valley.

OS Figure

Figure 16. Location of Significant Standing Structures Examined by Preservation Consultants 1989, Lower West Branch of the Cooper River Valley.

OS Figure

Figure 17. Locations of Archaeological Sites Listed, Eligible, or Potentially Eligible for the National Register in the Lower West Branch of the Cooper River Valley.

OS Figure

Table 11. National Register Listed, Eligible, and Potentially Eligible Archaeological Sites in the Lower West Branch Region.

| Site # | NRHP | Component | Comments | Protection |
|----------|----------------------|---|--------------------------------|-----------------------|
| 38BK0056 | Listed | 17th, 18th, 19th c. | Medway Plantation | Conservation Easement |
| 38BK0058 | Listed | 18 th , 19 th c. | St. Thomas Church/ Cemetery | |
| 38BK0071 | Listed | 18th, 19th, 20th c. | | |
| 38BK0197 | Eligible | 19th c. | | |
| 38BK0198 | Potentially Eligible | 19th c. | | |
| 38BK0199 | Potentially Eligible | 19th c. | | |
| 38BK0276 | Potentially Eligible | 18th; 19th c. | | |
| 38BK0326 | Potentially Eligible | Unknown Prehistoric; 19th c. | | |
| 38BK0334 | Potentially Eligible | Woodland | | |
| 38BK0335 | Potentially Eligible | Unknown Historic; 19th c. | | |
| 38BK0336 | Potentially Eligible | Woodland | | |
| 38BK0337 | Potentially Eligible | Woodland; Unknown Historic; 19th c. | | |
| 38BK0360 | Eligible | 18th; 19th c. | Spring Grove Main House | |
| 38BK0474 | Potentially Eligible | Unknown Historic | | |
| 38BK0599 | Potentially Eligible | Woodland; Unknown Prehistoric; Unknown Historic | | |
| 38BK0603 | Potentially Eligible | Unknown Prehistoric; Unknown Historic | | |
| 38BK0604 | Listed | Early Woodland; 18th, 19th, 20th c. | on Hagan Plantation | Conservation Easement |
| 38BK0609 | Potentially Eligible | Unknown Prehistoric; 18th c. | | |
| 38BK0683 | Potentially Eligible | Unknown Prehistoric; 18th; 19th c. | | |
| 38BK0776 | Potentially Eligible | Middle Woodland | | managed by USFS |
| 38BK0845 | Potentially Eligible | 18th; 19th c. | | |
| 38BK0975 | Potentially Eligible | 18th; 19th c. | | |
| 38BK1102 | Potentially Eligible | 18th; 19th c.; Unknown Historic | | managed by USFS |
| 38BK1608 | Eligible | 18th, 19th, 20th c. | Pine Grove Plantation | Conservation Easement |
| 38BK1662 | Potentially Eligible | Middle Archaic; Early Woodland; Mississippian; 18th c. | | |
| 38BK1727 | Potentially Eligible | Early Woodland | | |
| 38BK1728 | Potentially Eligible | Unknown Prehistoric; 18 th c. | | |
| 38BK1729 | Potentially Eligible | 18 th c. | | |
| 38BK1730 | Eligible | Woodland; 18th, 19th c. | | |
| 38BK1732 | Potentially Eligible | Early, Middle, and Late Woodland; 18th c. | | |
| 38BK1737 | Potentially Eligible | Early Woodland | | |
| 38BK1738 | Eligible | Unknown Prehistoric; 18th and 19th c. | | |
| 38BK1739 | Potentially Eligible | Unknown Prehistoric; 18 th and 19 th c. | | |
| 38BK1740 | Potentially Eligible | Unknown Prehistoric | | |
| 38BK1741 | Potentially Eligible | Unknown Prehistoric | | |
| 38BK1742 | Potentially Eligible | Unknown Historic | | |
| 38BK1743 | Potentially Eligible | Unknown Historic | | |
| 38BK1779 | Potentially Eligible | Early, Middle, and Late Woodland | | |
| 38BK1789 | Potentially Eligible | Middle Woodland | | |
| 38BK1790 | Listed | 19th c. | Akinfield Plantation | Conservation Easement |
| 38BK1828 | Potentially Eligible | 19 th and 20 th c. | | |
| 38BK1846 | Potentially Eligible | 18 th and 19 th c. | | |

ARCHAEOLOGICAL SITES

Of the 105 archaeological sites identified in the Lower West Branch, five are listed on the National Register individually or contributing to a district. These have been previously discussed. Five sites have been recommended as eligible for the National Register, but have not yet been listed. Thirty-two sites are listed as potentially eligible for the National Register. Forty six sites have been recommended as not eligible and the eligibility of another 14 sites has never been assessed. In addition, three sites that had previously been recommended as eligible were excavated and subsequently destroyed. Listed, eligible, and potentially eligible sites are shown in Figure 17 and are listed on Table 11.

CEMETERIES

A total of 10 cemeteries have been recorded in the Lower West Branch region by the South Carolina Genealogical Society (1995), in Connor (1989), and on USGS topographic maps (see Table 12; Figure 18). This, by no means, constitutes all cemeteries within this region. Of these, One is listed in the National Register (St. Thomas and St. Denis aka White Church). The Grove cemetery (38BK326) has been recommended as potentially eligible. The eligibility of the remaining cemeteries is unknown. Regardless of their National Register status, all cemeteries are protected by State law.

Table 12. Recorded Cemeteries Within the Lower West Branch of Cooper River Region.

| Name | Site Number | NRHP | Protection/Threats |
|--------------------------|-------------|----------------------|-----------------------|
| Akinfield Plantation | | Unknown | Conservation Easement |
| Chapel of Ease St. James | | Unknown | |
| Cypress Gardens | | Unknown | |
| Grove | 38BK0326 | Potentially Eligible | |
| Medway Plantation | | Unknown | Conservation Easement |
| Medway Plantation Black | | Unknown | Conservation Easement |
| Parnassus Plantation | | Unknown | Conservation Easement |
| Providence Church | | Unknown | |
| St. Thomas | 38BK0058 | Listed | |
| Whispering Pines | | Unknown | |

Figure 18. Locations of Recorded Cemeteries in the Lower West Branch of the Cooper River Valley.

VIII. RECOMMENDATIONS

Berkeley County has a rich history and the cultural resources in the Cooper River area are irreplaceable gems that deserve protection. It is clear that local and state planners and managers understand the importance of the area's history to citizens of the county as well as to the state. Historic parks and sites throughout the United States draw numerous visitors and bring economic benefits to those areas. Although development will continue to occur in the County, managing how development threats will affect significant cultural resources in the Cooper River drainage is important. Sometimes these threats to historic resources can be unforeseen in the long term future. However, when threats are initially recognized, planners, managers, and preservationists should discuss how best to minimize impact to a significant resource or completely protect it through restoration, appropriate relocation, and/or preservation in place, when feasible.

ENCOURAGING PRESERVATION

Educating County home and business owners about the financial incentives to preserving historic buildings and sites and the donation of conservation easements has the ability to enhance the current level of protection to historic resources in the Cooper River region. Berkeley County and the Town of Moncks Corner should work to make this information widely known. At the state level, the South Carolina State Historic Preservation Office administers several tax incentive programs:

- A 20% federal income tax credit for the certified rehabilitation of certified income-producing historic buildings. The buildings must be listed on the National Register of Historic Places and all work must meet the Secretary of Interior's Standards for Rehabilitation.
- A 10% state income tax credit for the rehabilitation of income-producing historic buildings that also qualify for the 20% federal income tax credit.
- A 25% state income tax credit for the certified rehabilitation of qualified owner-occupied residences. Buildings must be listed in or individually eligible for the National Register and all work must meet the Secretary of the Interiors Standards for Rehabilitation (project plans must be approved by the SHPO before work begins).
- A property tax abatement program that allows local governments to use special property tax assessments to encourage the rehabilitation of owner-occupied or income-producing historic buildings. Buildings must be listed in the National Register or be designated as historic by the local government. All work must meet the Secretary of Interior's Standards for Rehabilitation. The building must be located within the jurisdiction of a local government that has passed and ordinance implementing the special assessments.

Conservation easements are voluntary legal agreements that can be used to protect significant architectural, archaeological, or other cultural resources. They can also be used to protect scenic, natural, open-space, educational, recreational, or agricultural features. If certain criteria are met, an owner who donates an easement may be eligible for tax benefits. The South Carolina Conservation Easement Act of 1991 (South

Carolina Code of Laws, Section 27-8-10 through 27-8-80) provides a sound legal basis for the donation of easements (see Appendix I). The law makes easements more attractive by requiring the local tax assessor to consider the easement when assessing property values. The South Carolina Historic Preservation Office has published a list of organizations accepting easements and discusses the benefits (see Appendix I – Preservation Hotline #5).

In addition, there are some conservation easements that purchase the development rights of property in order to preserve sensitive resources. They include the Forest Legacy Program administered by the South Carolina Department of Natural Resources, the 2002 USDA Farm Bill, and the South Carolina Conservation Bank.

- In March 1999 the governor of South Carolina appointed the South Carolina Department of Natural Resources (SCDNR) as the state lead agency to develop and administer a Forest Legacy Program in South Carolina. The purpose of the Forest Legacy Program (FLP) is to identify and protect environmentally important forest land from conversion to non-forest uses, through the use of conservation easements and fee purchases. Guidelines for the Forest Legacy Program require the state lead agency to prepare an Assessment of Need (AON) to establish a state Forest Legacy Program in consultation with the State Forest Stewardship Coordinating Committee (SFSCC). The SCDNR worked in consultation with the South Carolina Forestry Commission (SCFC) and the SFSCC to develop the AON. The state grant option was selected in the AON. Under the State Grant Option, all FLP acquisitions shall be transacted by the state with the title vested in the state. Landowner participation is entirely voluntary. Details about this program can be found on the web at <http://www.dnr.state.sc.us/wild/forlegacy/forlegacy.html#Related%20Resources>.
- Under Title II of the 2002 USDA Farm Bill the Farmland Protection Program provides funds to State, tribal, or local governments and to nonprofit organizations to help purchase easements against development of productive farmland. In the 2002 version of the bill eligible land is expanded to include land with historical and archaeological resources. Eligible land now explicitly includes cropland, rangeland, grassland, pastureland, and forestland that is part of an agricultural operation. Additional information about Title II can be found on the web at <http://www.ers.usda.gov/Features/farmland/titles/titlellconservation.htm>.
- The Conservation Bank was created because the State of South Carolina has recognized that although rapid land development and economic growth have benefited South Carolina's people and economy, it has also led to the loss of farmland, forestland, wildlife habitat, outstanding natural areas, beaches, and public areas for outdoor recreation. Inappropriate land development can also jeopardize the well-being of the State's environment and its economy. In addition, land development has led to the loss of historical and archaeological sites that document human habitation in the State. The protection of open space by acquisition of interests in real property from willing sellers is essential to ensure that the State continues to enjoy the benefits of wildlife habitats, forestlands, farmlands, parks, historical sites, and healthy waterways. Such areas have value for recreational purposes, for scientific study, for aesthetic appreciation, and to maintain the State's position as an attractive location for visitors and new industry. Details on this program can be found at <http://sccbanc.sc.gov/>.

We also recommend that Berkeley County and the Town of Moncks Corner consider implementing voluntary preservation incentives at the local level. These incentives could include property tax reductions for those who preserve historic buildings and archaeological sites. In some cases, special zoning considerations might be made for those who wish to preserve standing structures and archaeological sites. In short, planners should determine feasible ways to make preservation easier and attractive for those who own such properties.

RETAINING HISTORIC INTEGRITY

The recent creation of the Berkeley County Special Area Permit for National Register Listed Sites will help to preserve the scenic and cultural integrity of a number of important resources in the Cooper River Valley. This permit requires that the applicant demonstrates that the best available development and management practices will be used to minimize impacts to National Register listed properties. Although the permit provides some protection to listed properties, there is no mechanism for the protection of sites and structures determined to be eligible, but never listed. In order to protect these properties through the Special Area permit, it is recommend that Berkeley County consider expanding the permit requirements to include properties determined to be eligible for inclusion in the National Register, but not officially listed.

If large scale development (e.g. housing subdivisions and business or industrial parks) within the Cooper River Region is unavoidable (and it probably is), the Town of Moncks Corner and Berkeley County could create incentives for encouraging development within specific areas, such as along US Hwy 52, rather than within the rural heart of the Cooper River study area where it is more likely to affect the historic character of the area to a more profound scale. The County may want to determine if development can occur in clustered residential and/or business locations within the study area whose boundaries are already defined by historically sensitive or agricultural/silvicultural areas. There are few of these locations within the study area where this condition exists, but includes the Town of Moncks Corner and a few areas at the northern end of County Road 791. New industrial development and business parks would be best restricted to areas where it currently exists. By placing new developments in these locations, it would minimize impacts to historic properties and help retain the rural and historic character as it presently exists. Currently, developments that have already been planned and approved, but not yet implemented, will occur within these areas (Ms. Madelyn Robinson – Berkeley County Planning and Zoning Department, personal communication 2004).

PARTICIPATION IN THE CERTIFIED LOCAL GOVERNMENT PROGRAM

Berkeley County officials may want to consider becoming a Certified Local Government (CLG). The CLG program promotes community preservation planning and heritage education through a partnership with the National Park Service and the State Historic Preservation Office (SHPO) that facilitates funding, technical assistance, and training. By becoming a CLG the County would be eligible to apply for federal grant money specifically earmarked for CLGs. In the past this money has funded historic resources surveys, historic building stabilization, and the development of design guidelines. CLG members also get technical help and training for a board of architectural review. They can participate in statewide preservation planning programs. Also, they are given an opportunity to comment on nominations of historic properties and districts in the community to the National Register of Historic Places before the nominations are considered by the State Review Board. The County and Town may wish to discuss benefits with current CLG members to determine whether this option is appropriate for their County and for the Town of Moncks Corner.

CLG funds could be used to determine the current condition of significant and potentially significant historic properties that were recorded and assessed in 1989 prior to Hurricane Hugo. It could determine the affects of the hurricane as well as deterioration and development pressures on these properties which were assessed 15 years ago. The CLG funds and training may also assist planners in creating feasible additional voluntary incentives for historic preservation and retaining historic character.

ENCOURAGING PUBLIC OUTREACH AND EDUCATION

Public education about the importance of the County's cultural resources will help to bolster local support for preservation. Such education should stress the fact that cultural resources are fragile and non-renewable and thus, perhaps reduce the likelihood of vandalism and site looting. It would also help property owners better understand and appreciate the significance their land or house has for their community.

When development occurs that requires compliance with Section 106 of the Historic Preservation Act, the resulting work is typically reviewed by the State Historic Preservation Office. When archaeological sites or standing structures are found to be eligible for the National Register and they can not be preserved in place, a Memorandum of Agreement (MOA) is produced to ensure that any adverse impact is mitigated. For archaeology, there is typically an excavation plan which outlines the work to be done, the research questions that will be addressed, the kinds of analysis that will be performed, and the production schedule for the resulting report. Unfortunately, in most instances the work is performed with little or no news coverage and the public is left with little or no knowledge of the project or what was found. It is recommended that the Town of Moncks Corner and Berkeley County request that the State Historic Preservation Office recommend that MOAs for data recovery excavations in the Cooper River drainage include some component for public outreach. This could consist of one or more of several options:

- A Public Day: Inviting local historic preservation groups to visit the site during excavation to see what the archaeologists have discovered about who lived there. Volunteer opportunities to help with excavations and recordation might also be provided, if appropriate;
- A Web Brochure: To be linked to an appropriate county/Town web page, which discusses the history of the property and findings;
- A Printed Brochure: Available through the Berkeley County Museum and/or other venues, discussing the history of the property and findings. Web and printed brochures could also be used to educate the public about the importance of preventing site looting and vandalism and give them an opportunity to assist with the stewardship of the cultural resources;
- Slide Presentation: To be delivered by the archaeologist, historian, or architectural historian to a local audience at a local venue on the history and findings.

The use of a public outreach component will foster civic pride, increase interest in the history and preservation of the historic resources of the area, allow for public involvement, and provide a positive public face for preservation efforts in the Cooper River area by individual citizens and government.

Although Berkeley County's historic resources are fairly well known, the richness and beauty of the area's history may not be fully understood by outside visitors and perhaps some local residents. Increased efforts toward show-casing historic properties and encouraging tourism in the area can increase local pride and

desire for preservation, bolster property values, and bring more money into the area by attracting more tourists. Perhaps one method of providing comprehensive information is the creation of a driving tour booklet which would provide a history of the area and a brief discussion of accessible properties along the route. These booklets could be distributed through the Berkeley County Museum, the Chamber of Commerce, and at Welcome Centers.

IDENTIFYING NEW RESOURCES AND DETERMINING THE CHANGING CONDITION OF KNOWN RESOURCES

This study provides information about sites and structures that are currently listed, eligible, and potentially eligible for inclusion in the National Register of Historic Places. It is important that Berkeley County and the Town of Moncks Corner update the GIS database associated with this report as the information is available in order to minimize the potential for destruction or damaging the integrity of significant cultural resources.

The 1989 standing structure survey performed by Preservation Consultants identified many of the significant standing structures in the County. However, since that time it is possible that some of these structures are no longer standing or their eligibility for the National Register has changed in the past 15 years. Fortunately, many of the buildings within the Cooper River National Register District have been recently re-examined and the buildings that contributed to the eligibility of the area were included in the nomination (Ms. Katherine Saunders, Historic Charleston Foundation, personal communication 2004). However, outside of the National Register district the current condition of those structures identified in 1989 is unknown. In order to properly manage these known resources, the County should consider having an architectural historian re-visit them to determine if their condition has changed and if it affects their eligibility status.

Neither Preservation Consultants nor architectural historians involved in the authorship of the Cooper River National Register District had access to all properties within the study area and, therefore, our knowledge of standing structures is incomplete. It is likely that there are other significant standing structures that have never been recorded and assessed. As new structures are recorded, this information should be added to the GIS database so that planners are aware of their existence.

Since there has been no systematic archaeological survey of the entire study area, new archaeological sites will be found and some of these will be eligible for inclusion in the National Register of Historic Places. Unlike standing structures, archaeological sites do not often have a viewshed that would be adversely affected by a development. Exceptions to this, however, would be a site that draws part of its National Register eligibility from the integrity of its setting – such as the ruins of a rice mill situated adjacent to an intact rice dike and field system where visual impact might detract from its integrity. Most of the time, however, adverse impact to an archaeological site is direct impact, where ground disturbance will destroy the physical integrity of the site. Therefore, the likelihood of development adversely affecting a significant archaeological site may be less likely. Nonetheless, like standing structures, information on significant archaeological sites should be periodically updated and added to the GIS database.

It is also important that when abandoned cemeteries are discovered, their locations are noted for future reference. These should be added to the GIS database supplied with this report. Although many cemeteries are not eligible for the National Register of Historic Places, they are protected by state law. Sometimes this law is not enforced and cemeteries get destroyed, although in some cases it is inadvertent. Abandoned cemeteries, particularly African-American cemeteries, are sometimes difficult to see and can simply consist of shallow grave depressions with, perhaps, a couple of wooden markers or other similarly impermanent

markers. When these cemeteries are damaged or destroyed, the resulting press is typically quite negative. Keeping the cemetery database updated may help to avert some of these situations.

In the future, it may become apparent that there are locally important sites that have never been officially recorded. These may be standing structures, geographic landmarks where significant events reportedly took place, or traditional gathering places that Berkeley County residents would like preserved. Such sites may not contain the characteristics of a National Register eligible property, but if they are locally significant, then planners and managers should consider assisting in their preservation.

Ideally, the GIS data would be updated as soon as significant resources were identified. This would require coordination between the County GIS manager, local planners, and the State Historic Preservation Office to exchange information. In this manner, although this printed document would become outdated, the GIS database would keep information on significant cultural resources current. If this is not possible, Berkeley County could hire a cultural resource consultant to update the GIS layers at regular intervals.

SUMMARY

Berkeley County and the Town of Moncks Corner are to be commended for taking this important step in protecting the cultural resources of the study area. It is clear that the community appreciates its history and believes that the protection of the historic character of the area is very important. One of the best protective measures Berkeley County and the Town of Moncks Corner can take is to have current information in hand about significant cultural resources. Otherwise, it is possible that irreplaceable resources will be lost forever. It is unknown how quickly this Cultural Resource Management Plan will become out of date, but with periodic maintenance of the GIS database associated with this project, they will have the most current information available.

The County should provide information to local property owners about the financial incentives for preserving National Register listed properties and the benefits of conservation easements. They may also want to consider creating some County and Town level financial incentives to encourage historic preservation.

The land use tool known as the "Special Area Permit" will help direct development away from National Register listed properties and help retain the historic integrity of the area. It is clear from the County's 1999 Comprehensive Plan that keeping this integrity in place is important. It is recommended that the County consider extending this protection to sites that have been determined to be eligible but have never been listed.

Participation in the Certified Local Government program offered by the National Park Service and administered through the State Historic Preservation Office should be considered since they offer funding for preservation and planning projects and offer training programs. County and Town officials may wish to discuss the benefits and any drawbacks with other CLG members to determine if this is something they should pursue.

Berkeley County and the Town of Moncks Corner should also find ways to increase tourism within the study area. We have recommended a comprehensive driving tour booklet that highlights the history of the area

and provides specific information on accessible historic sites and structures. Also important is increasing the public awareness of the historic significance of the entire area and educating citizens about the fragility of these non-renewable resources. By creating more opportunities for public outreach, the County and Town will likely increase public support for their preservation efforts.

REFERENCES CITED

Adams, N.P.

- 1990 *Early African American Domestic Architecture from Berkeley County, South Carolina*. M.A. Thesis. Department of Anthropology, University of South Carolina.
- 1995 Management Summary of Archaeological Data Recovery at the Crawl Plantation Main House and Slave Row, 38BK1669 and 38BK1670, Berkeley County, South Carolina. Research Contribution 168. Chicora Foundation, Columbia.
- 2001 "In the Style of an English Cottage": Influences on the Design, Construction, and Use of South Carolina Slave Houses. Paper presented at the Southeastern Archaeological Conference, Chattanooga, Tennessee.
- 2002 A Pattern of Living: A View of the African American Slave Experience in the Pine Forests of the Lower Cape Fear, pp. 65-78. In *Another's Country: Archaeological and Historical Perspectives on Cultural Interactions in the Southern Colonies*, edited by J.W. Joseph and Martha Zierden. University of Alabama Press, Tuscaloosa.

Adams, N.P. and M. Trinkley

- 1993 Prehistoric Archaeological Investigations. In *The History and Archaeology of Kiawah Island, Charleston County, South Carolina.*, pp. 151-177. Edited by Michael Trinkley. Research Series 30, Chicora Foundation, Inc.

Adovasio, J.M., J.D. Gunn, J. Donahue, and R. Stuckenrath

- 1977 Meadowcroft Rockshelter: Retrospect 1976. *Pennsylvania Archaeologist* 47 (2-3).

Adovasio, J.M., R.C. Carlisle, K.A. Cushman, J. Donahue, J.E. Guilday, W.C. Johnson, K. Lord, P.W. Parmalee, R. Stuckenrath, and P.W. Wiegman

- 1985 Paleoenvironmental Reconstruction at Meadowcroft Rockshelter, Washington County, Pennsylvania. In *Environments and Extinctions: Man in Late Glacial North America*, edited by J.I. Mead and D.J. Meltzer, pp. 73-110. Peopling of the Americas Edited Volume Series, Center for the Study of Early Man, Orono, Maine.

Affleck, R.M.

- 1990 Power and Space: Settlement Pattern Change at Middleburg Plantation, Berkeley County, South Carolina. Master's Thesis, Department of Anthropology, University of South Carolina.

Anderson, D.G

- 1975 Inferences from Distributional Studies of Prehistoric Artifacts in the Coastal Plain of South Carolina. *Southeastern Archaeological Conference Bulletin* 18: 180-194.
- 1979 *Excavations at Four Fall Line Sites: The Southeastern Columbia Beltway Project*. Commonwealth Associates, Inc., Jackson, Mississippi.
- 1982 The Mattassee Lake Ceramic Artifact Assemblage. In *Mattassee Lakes: Archaeological Investigations Along the Lower Santee River in the Coastal Plain of South Carolina*, by D.G. Anderson, C.E.

- Cantley, and A.L. Novick, pp. 207-322. Atlanta Interagency Archaeological Services Division, Special Publication.
- 1990 *Political Change in Chiefdom Societies: Cycling in the Late Prehistoric Southeastern United States*. Ph.D. Dissertation. Department of Anthropology, University of Michigan, Ann Arbor.
- Anderson, D.G. and J.W. Joseph
- 1988 *Prehistory and History Along the Upper Savannah River: Technical Synthesis of Cultural Resource Investigations, Richard B. Russell Multiple Resource Area*. Report submitted to Interagency Archaeological Services, Atlanta, Georgia by Garrow and Associates, Inc. Russell Papers.
- Anderson, D.G. and T. Logan
- 1981 *Francis Marion National Forest: A Cultural Resources Overview*. USDA Forest Service, Columbia, SC.
- Anderson, D.G., C.E. Cantley, and A.L. Novick
- 1982 *Mattassee Lake: Archaeological Investigations Along the Lower Santee River in the Coastal Plain of South Carolina*. Atlanta Interagency Archaeological Services Division, Special Publications.
- Babson, D.W.
- 1987 *The Tanner Road Settlement: The Archaeology of Racism on Limerick Plantation*. Master's Thesis, Department of Anthropology, University of South Carolina.
- 1990 *The Archaeology of Racism and EthniTown on Southern Plantations*. *Historical Archaeology* 24(4):20-28.
- Barile, K.
- 1999 *Causes and Creations: Exploring the Relationship Between Nineteenth Century Slave Insurrections, Landscape, and Architecture at Middleburg Plantation, Berkeley County, South Carolina*. Masters Thesis, Department of Anthropology, University of South Carolina.
- Barr, W.
- 1995 *Strawberry Ferry and Childsbury Towne: A Socio-economic Enterprise on the Western Branch of the Cooper River, Saint John's Parish, Berkeley County, South Carolina*. Master's Thesis, Department of Anthropology, University of South Carolina.
- Bense, J.A., H.A. Davis, L. Hartfield, and K. Deagan
- 1986 *Standards and Guidelines for Quality Control in Archaeological Resource Management in the Southeastern United States*. *Southeastern Archaeology* 5:52-62.
- Berkeley-Charleston-Dorchester Council of Governments
- 1999 *Berkeley County Comprehensive Plan*. Berkeley-Charleston-Dorchester Council of Governments, South Carolina.
- Binford, L.R.
- 1978 *Dimensional Analysis of Behavior and Site Structure: Learning from an Eskimo Hunting Stand*. *American Antiquity* 43(3):330-361.
- 1980 *Willow Smoke and Dogs' Tails: Hunter-Gatherers Settlement Systems and Archaeological Site Formation*. *American Antiquity* 45(1):4-20.

Blanton, D.B., C.T. Espenshade, and P.E. Brockington, Jr.

- 1986 *An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina*. Report Submitted to the Department of Highways and Public Transportation, Garrow and Associates, Inc., Atlanta.

Brockington, P.E., Jr., M.V. Markham, C.S. Butler, and D.C. Jones

- 1995 *Cultural Resources Survey of the Charleston Naval Weapons Station, Berkeley and Charleston Counties, South Carolina*. Brockington and Associates, Atlanta, Georgia.

Brooks, M.J. and J.D. Scurry

- 1980 *An Intensive Archaeological Survey of Amoco Realty Property in Berkeley County, South Carolina, with a Test of Two Subsistence-Settlement Hypotheses for the Prehistoric Period*. *South Carolina Institute of Archaeology and Anthropology, University of South Carolina*. Research Manuscript Series 147.

Brooks, M.J., B.E. Taylor, and J.A. Grant

- 1996 Carolina Bay Geoarchaeology and Holocene landscape Evolution on the Upper Coastal Plain of South Carolina. *Geoarchaeology: An International Journal* 11 (6): 481-504.

Brooks, M.J., L. Lepionka, T.A. Rathbun, and J. Goldsborough, Jr.

- 1982 *Preliminary Archaeological Investigations at the Callawassie Island Burial Mound (38BU19), Beaufort County, South Carolina*. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Research Manuscript Series No. 185, Columbia.

Brooks, M.J., P.A. Stone, D.J. Colquhoun, and J.G. Brown

- 1989 Sea Level Change, Estuarine Development and Temporal Variability in Woodland Period Subsistence-Settlement Patterning on the Lower Coastal Plain of South Carolina. In *Studies in South Carolina Archaeology: Essays in Honor of Robert L. Stephenson*, edited by A.C. Goodyear, III and G.T. Hanson, pp. 91-110.

Bull, E.B.

- 1979 *Historic Preservation Inventory, Berkeley County*. Berkeley-Charleston-Dorchester Council of Governments, Charleston, S.C.

Byra, P.

- 1996 The Contextual Meaning of the 1830s Landscape at Middleburg Plantation, Berkeley County, South Carolina. Master's Thesis, Department of Anthropology, University of South Carolina.

Cable, J.S.

- 1982 Organizational Variability in Piedmont Hunter-Gatherer Lithic Assemblages. In *The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont*, assembled by S.R. Claggett and J.S. Cable, pp. 637-688. Commonwealth and Associates, Inc.
- 2001 *2000 Fireline Survey of Selected Compartments in the Francis Marion National Forest*. Palmetto Research Institute Publications in Archaeology, Irmo, South Carolina.

Cable, J.S., D.R. Lawrence, and L.A. Raymer

- 1991 *Archaeological Test Excavations on the Northeastern Perimeter of the Buck Hall Site (38CH644), Buck Hall Recreation Area, Francis Marion National Forest, South Carolina*. Technical Report 44. Submitted to the USDA Forest Service. New South Associates, Stone Mountain, Georgia.

- Caldwell, J.R. and C. McCann
 1941 *Irene Mound Site, Chatham County, Georgia*. University of Georgia Press, Athens.
- Chapman, J.
 1975 *The Rose Island Site and the Bifurcate Point Tradition*. Report of Investigations No. 14, Department of Anthropology, University of Tennessee.
- Charles, T. and J. Mills
 1987 *An Archaeological Reconnaissance Survey of the Proposed Santee Canal Sanctuary*. Research Manuscript Series 202. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Clafin, W.H., Jr.
 1931 *The Stallings Island Mound, Columbia County, Georgia*. Harvard University, Papers of the Peabody Museum of American Archaeology and Ethnology No. 14(1).
- Claggett, S.R. and J.S. Cable (Assemblers)
 1982 *The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont*. Commonwealth and Associates, Inc.
- Coe, J.L.
 1964 *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5). Philadelphia.
 1995 *Town Creek Indian Mound, A Native American Legacy*. The University of North Carolina Press, Chapel Hill.
- Colquhoun, D.J.
 1969 *Geomorphology of the Lower Coastal Plain of South Carolina*. South Carolina State Development Board, Division of Geology, Columbia.
- Colquhoun, D.J., T.A. Bond, and D. Chappel
 1972 Santee Submergency, Examples of Cyclic Submerged and Emerged Sequences. *Geological Society of America* 133: 475-496.
- Colquhoun, D.J., M.J. Brooks, W.H. Abbott, F.W. Stapor, W.S. Newman, and R.R. Pardi
 1980 Principles and Problems in Establishing a Holocene Sea Level Curve for South Carolina. In *Excursions in Southeastern Geology, the Archaeology-Geology of the Georgia Coast*, edited by J.D. Howard, C.B. DePratter, and R.W. Fray, pp. 143-159. Geological Society of America Guidebook No. 20.
- Connor, C.
 1989 "Sleep On and Take Your Rest": Black Mortuary Behavior on the East Branch of the Cooper River, South Carolina. M.A. Thesis, Department of Anthropology, University of South Carolina.
- Critchfield, H.J.
 1974 *General Climatology*. Prentice Hall, Englewood, Cliffs.
- Delcourt, P.A. and H.R. Delcourt
 1987 *Long-term Forest Dynamics of the Temperate Zone: A Case Study of Late-Quaternary Forests in Eastern North America*. Springer-Verlag, New York.

DePratter, C.B. and C. Judge

- 1986 A Provisional Late Prehistoric and Early Historic Ceramic Sequence for the Wateree River Valley, South Carolina. Paper presented at the Lamar Institute Conference on South Appalachian Mississippian, May 9-10, 1986, Macon, Georgia.

Drucker, L. and R. Anthony

- 1979 *The Spiers Landing Site: Archaeological Investigations in Berkeley County*. Carolina Archaeological Services, Columbia.

Drucker, L. and M. Schohn

- 1999 *Archaeological Inventory Survey of the Strawberry Development Tract (Childsbury), Berkeley County, South Carolina*. AFC Resource Studies Series #168. AF Consultants, Columbia, S.C.

Edgar, W.

- 1998 *South Carolina: A History*. University of South Carolina Press, Columbia.

Elliott, D.T.

- 1987 *Crowfield Archaeological Survey*. Garrow and Associates, Inc., Atlanta.

Espenshade, C.T. and P.E. Brockington, Jr.

- 1989 *An Archaeological Study of the Minim Island Site: Early Woodland Dynamics in Coastal South Carolina*. Brockington and Associates, Atlanta.

Espenshade, C.T., L. Kennedy, and B. Southerlin

- 1994 *What is a Shell Midden? Data Recovery Excavations of Thom's Creek and Deptford Shell Middens, 38BU2, Spring Island, South Carolina*. Brockington and Associates, Inc., Atlanta, Georgia.

Ferguson, L.G.

- 1992 *Uncommon Ground: Archaeology and Early African America, 1650-1800*. Smithsonian Institution Press, Washington, D.C.

Ferguson, L.G. and D. Babson

- 1986 *Survey of Plantation Sites along the East Branch of Cooper River: A Model for Predicting Site Locations*. Department of Anthropology, University of South Carolina, Columbia.

Fetters, T.T.

- 1990 *Logging Railroads of South Carolina*. Heimburger House, Forest Park, Illinois.

Fick, S., J. Laurens, R.P. Stockton, and D.B. Schneider

- 1990 *Historic Resources of Berkeley County South Carolina*. Preservation Consultants, Charleston.

Gardner, W.M.

- 1974 The Flint Run Complex: Pattern and Process During the Paleo-Indian to Early Archaic. In *The Flint Run Paleo-Indian Complex: A Preliminary Report 1971-73*, W.M. Gardner (ed.). Occasional Publications No. 11, Archaeology Laboratory, Department of Anthropology, Catholic University, Washington, D.C.

Goodyear, A.C., III, J.H. House, and N.W. Ackerly

- 1979 *Laurens-Anderson: An Archaeological Study of the Inter-Riverine Piedmont*. Anthropological Studies 4. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Griffin, J.B.

- 1945 *Ceramic Collections from Two South Carolina Sites*. Papers of the Michigan Academy of Science, Arts, and Letters 30: 465-478.

Hanson, G.T., Jr.

- 1982 The Analysis of Late Archaic-Early Woodland Adaptive Change Along the Middle Savannah River: A Proposed Study. *Notebook* 14: 1-38.

Harmon, M. and R. Snedeker

- 1997 The Archaeological Record of Tar and Pitch Production in Coastal Carolina. In *Carolina's Historical Landscapes: Archaeological Perspectives*, edited by L. Stine et al., pp. 145-160. University of Tennessee Press, Knoxville.

Hartley, M.O. and R.L. Stephenson

- 1975 *The Grove and Flagg Plantations Survey*. Research Manuscript Series 72. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Herold, E.B. and K.R. Scruggs

- 1975 *An Archaeological and Historical Survey of the Grove and Flagg Plantations*. The Charleston Museum, S.C.
- 1976 *An Historical Survey of the Proposed East Cooper of Berkeley Railroad Right of Way (Route D)*. The Charleston Museum, S.C.
- 1979 Historic Archaeology at Flagg and Grove Plantations, Berkeley County, South Carolina. Paper presented at the 5th annual conference on South Carolina Archaeology, Archaeological Society of South Carolina, Columbia.

Herold, E.B., S. G. Knick, III, and A. Liss

- 1978 *An Historical-Archaeological Survey of the Boswell Tract, Berkeley County, South Carolina*. The Charleston Museum, S.C.

Hilliard, S.B.

- 1975 The Tidewater Rice Plantation: An Indigenous Adaptation to Nature. *Geoscience and Man* 12: 57-66.

Hoyt, J.H.

- 1968 *Geology of the Golden Isles and Lower Georgia Coastal Plain*. In Conference on the Future of Marshlands and Sea Islands of Georgia, October 13-14, 1968, edited by D.S. Maney, F.C. Marland, and C.B. West, pp. 18-34. Georgia Natural Areas Council and Coastal Area Planning and Development Commission.

Irving, J.B.

- 1969 *A Day on Cooper River*. Enlarged and edited by Louisa Cheves Stoney. R.L. Bryan Company, Columbia, S.C.

Johnson, A.S., H.O. Hillestad, S.F. Shanholtzer, and G.F. Shanholtzer

- 1974 *An Ecological Survey of the Coastal Region of Georgia*. National Park Service, Science Monograph Series No. 3, Washington, D.C.

Jones, G.D.

- 1978 The Ethnohistory of the Guale Coast Through 1684. In *The Anthropology of St. Catherines Island: 1. Natural and Cultural History*, by D.H. Thomas, G.D. Jones, R.S. Durham and C.S. Larsen, pp. 178-209. Anthropological Papers of the American Museum of Natural History No. 55(2). New York.

Kennedy, Linda and Christopher Espenshade

- 1991 *Data Recovery at 38BU1270, Beaufort County, South Carolina*. Brockington and Associates, Inc., Atlanta.
- 1992 *Data Recovery Investigations of Four Wilmington Phase Sites (38BU132, 38BU372, 38BU1236, and 38BU1241), Beaufort County, South Carolina: A Study in Middle Woodland Subsistence Strategies*. Brockington and Associates, Atlanta.

Kovacik, C.F. and J.J. Winberry

- 1987 *South Carolina: The Making of A Landscape*. University of South Carolina Press, Columbia.

Lees, W.B.

- 1980 *Limerick, Old and In the Way: Archaeological Investigations at Limerick Plantation, Berkeley County, South Carolina*. Occasional Papers of the Institute of Archaeology and Anthropology, University of South Carolina, No. 5.

Leiding, H.K.

- 1912 *Historic Houses of South Carolina*. J.B. Lippincott Co., Philadelphia

Lepionka, L., D. Colquhoun, R. Marrinan, David McCollum, M. Brooks, J. Foss, W. Abbott, and R. Grunden

- 1983 *The Second Refuge Site, Location 22 (38JA61), Savannah National Wildlife Refuge, Jasper County, South Carolina*. University of South Carolina, Beaufort. Submitted to the National Park Service, Inter-agency Archaeological Services, Atlanta.

Mathew, W.M., editor

- 1992 *Agriculture, Geology, and Society in Antebellum South Carolina: The Private Diary of Edmund Ruffin, 1843*. University of Georgia Press, Athens.

Mathews, T.D., F.W. Stapor, Jr., C.R. Richter, J.V. Miglarese, M.D. McKenzie, and L.A. Barclay

- 1980 *Ecological Characterization of the Sea Islands Coastal Region of South Carolina and Georgia, Vol. I: Physical Features of the Characterization Area*. Coastal Ecosystems Project, US Department of the Interior, Washington, D.C.

McAvoy, J.M. and L.D. McAvoy

- 1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Virginia Department of Historic Resources, Research Report Series No. 8, Richmond.

Meltzer, D.J., D.K. Grayson, G. Ardila, A.W. Barker, D.F. Dincause, C.V. Haynes, F. Mena, L. Nunez, and D.J. Stanford

- 1997 On the Pleistocene Antiquity of Monte Verde, Southern Chile. *American Antiquity* 62(4): 659-663.

Michie, J.L.

- 1977 The Late Pleistocene Human Occupation of South Carolina. Ms. on file, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

- 1979 *The Bass Pond Dam Site: Intensive Archaeological Testing at a Formative Period Base Camp on Kiawah Island, South Carolina*. Research Manuscript Series 154. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- 1980 *An Intensive Shoreline Survey of Archaeological Sites in Port Royal Sound and the Broad River Estuary, Beaufort County, South Carolina*. Research Manuscript Series No. 167. South Carolina Institute of Archaeology and Anthropology, Columbia.
- Milanich, Jerald T. and Charles H. Fairbanks
- 1980 *Florida Archaeology*. Academic Press, New York.
- Mills, R.
- 1972 *Atlas of South Carolina*. Hurlbut and Lloyd, Charleston, South Carolina. Reprinted 1968 by the Reprint Company, Spartanburg, South Carolina.
- Moore, J.H., editor
- 1967a The Abiel Abbott Journals: A Yankee Preacher in Charleston Society, 1817-1827. *South Carolina Historical Magazine* 68(3).
- 1967b The Abiel Abbott Journals: A Yankee Preacher in Charleston Society, 1817-1827. *South Carolina Historical Magazine* 68(4).
- Murphy, C. H.
- 1995 *Carolina Rocks!* Sandlapper Publishing Co., Orangeburg, South Carolina.
- Myers, V.A.
- 1975 *Storm Tide Frequencies on the South Carolina Coast*. NOAA Technical Report No. NWS-16. US Government Printing Office, Washington, D.C.
- Oliver, B.A.
- 1985 Tradition and Typology: Basic Elements of the Carolina Projectile Point Sequence. In *Structure and Process in Southeastern Archaeology*, edited by R.S. Dickens and T. Ward, pp. 195-211. University of Alabama Press, Tuscaloosa.
- Orser, C.E., Jr.
- 1988 *The Material Basis of the Postbellum Tenant Plantation: Historical Archaeology in the South Carolina Piedmont*. University of Georgia Press, Athens.
- Orvin, M.C.
- 1973 *Historic Berkeley County, South Carolina, 1671-1900*. Comprint, Charleston.
- Peterson, D.
- 1971 *Time and Settlement in the Archaeology of Groton Plantation, South Carolina*. Unpublished Ph.D. dissertation, Department of Anthropology, Harvard University, Cambridge.
- Phelps, D.S.
- 1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina, an Archaeological Symposium*, edited by Mark A. Mathis and Jeffery L. Crow, pp. 1-51. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Poplin, E. and A. Chapman

- 1990 *Archaeological Survey of Selected Portions of the Stony Landing Development Tract*. Brockington and Associates, Mt. Pleasant, S.C.

Preservation Consultants

- 1989 *Berkeley County Historical and Architectural Inventory: Survey Report*. Preservation Consultants, Inc., Charleston.

Purvis, J.C.

- 1980 *South Carolina Hurricanes, 1950-1979*. South Carolina Emergency Preparedness Division, Columbia.

Range, W.

- 1954 *A Century of Georgia Agriculture, 1850-1950*. University of Georgia Press, Athens.

Roberts, W.D. and O.M. Caballero

- 1988 *Archaeological Test Excavations at Site 38BK984, Berkeley County, South Carolina*. South Carolina Department of Highways and Public Transportation, Columbia.

Robinson, K.W.

- 1988 *Archaeology and the North Carolina Naval Stores Industry: A Prospectus*. Office of State Archaeology, North Carolina. Division of Archives and History, Department of Cultural Resources, Raleigh.

Rogers, G.C., Jr.

- 1989 *Charleston in the Age of the Pinckneys*. University of South Carolina Press, Columbia.

Rogers, G.C., Jr. (editor)

- 1968 *The Papers of Henry Laurens, vol. IV: September 1, 1763-August 31, 1765*. University of South Carolina Press, Columbia.

Rust, T. and E. Poplin

- 1995a *Archaeological Survey and Testing of the Nucor Steel Company's Hagan Plantation Tract, Berkeley County, South Carolina*. Brockington and Associates, Atlanta, GA.
- 1995b *Archaeological Survey of Railroad Access Lines Into the Nucor Hagan Tract, Berkeley County, South Carolina*. Brockington and Associates, Atlanta, GA.
- 1995c *Intensive Archaeological Survey of 36 Acres as an Addendum to Archaeological Survey and Testing of the Nucor Steel Company's Hagan Plantation Tract, Berkeley County, South Carolina*. Brockington and Associates, Atlanta, GA.

Rust, T., J.R. Hill III, and B.G. Harvey

- 1996 *Data Recovery Investigations at 38BK1731, NUCOR Steel Company's Hagan Plantation Tract, Berkeley County, South Carolina*. Brockington and Associates, Atlanta, GA.

Sandifer, P.A., J.V. Miglarese, D.R. Calder, J.J. Manzi, and L.A. Barclay

- 1980 *Ecological Characterization of the Sea Islands Coastal Region of South Carolina and Georgia, Vol. II: Biological Features of the Characterization Area*. Coastal Ecosystems Project, U.S. Department of the Interior, Washington, D.C.

Sassaman, K.E.

- 1983 *Middle and Late Archaic Settlement in the South Carolina Piedmont*. M.A. thesis, Department of Anthropology, University of South Carolina, Columbia.
- 1993 *Early Pottery in the Southeast: Tradition and Innovation in Cooking Technology*. University of Alabama Press, Tuscaloosa.

Sassaman, K.E., M.J. Brooks, G.T. Hanson, and D.G. Anderson

- 1990 *Native American Prehistory of the Middle Savannah River Valley: A Synthesis of Archaeological Investigations on the Savannah River Site, Aiken and Barnwell Counties, South Carolina*. Savannah River Archaeological Research Papers 1. Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina.

SCDAH, SCIAA, AND COSCAPA

- 2000 *South Carolina Standards and Guidelines for Archaeological Investigations*. Published by the South Carolina State Historic Preservation Office, South Carolina Institute of Archaeology and Anthropology, and Council of South Carolina Professional Archaeologists.

Segovia, A.

- 1985 *Archaeological Geology of the Savannah River Valley and Main Tributaries in the Richard B. Russell Multiple Resource Area*. Russell Papers. National Park Service, Archaeological Services Branch, Atlanta.

Simmons, J. and M. Newell

- 1989 *The Santee Canal Sanctuary*. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Smith, B.D.

- 1986 The Archaeology of the Southeastern United States: from Dalton to DeSoto, 10,500-500 B.P. In *Advances in World Archaeology*, edited by F. Wendorf and A. Close, pp. 1-91. Academic Press, New York.

Smith, H.A.M.

- 1988 *The Baronies of South Carolina*. Reprint Company, Spartanburg, S.C.

South, S.A.

- 1959 An Archaeological Survey of Southeastern Coastal North Carolina. Ms. on file, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

South Carolina Department of Archives and History

- 2004 South Carolina Department of Archives and History Web Site; <http://www.state.sc.us/scdah/>; January 2004.

South Carolina Geneological Society

- 1985 *Berkeley County, South Carolina Cemetery Inscriptions*. Charleston Chapter of the South Carolina Geneological Society.
- 1995 *Berkeley County, South Carolina Cemetery Inscriptions*. Charleston Chapter of the South Carolina Geneological Society.

Steen, C.R.

- 1993 *A Preliminary Report on the 1992 Excavations at Pine Grove Plantation*. Diachronic Research Foundation, Inc., Columbia.
- 1994 *An Annotated Bibliography of Historic Sites Archaeology in the South Carolina Lowcountry Counties of Charleston, Berkeley and Dorchester*. Diachronic Research Foundation, Inc., Columbia.

Stoltman, J.B.

- 1974 *Groton Plantation: An Archaeological Study of a South Carolina Locality*. Monograph of the Peabody Museum, No. 1, Cambridge.

Strahler, A.N.

- 1977 *Principles of Physical Geology*. Harper and Roe, New York.

Sutherland, D.R.

- 1973 Preliminary Analysis of Ceramic Materials Recovered from the Spanish Mount Site, Edisto Island, S.C. *South Carolina Antiquities* 5(2): 45-50.
- 1974 Excavations at the Spanish Mount Shell Midden, Edisto Island, S.C. *South Carolina Antiquities* 6(1): 25-36.

Swanton, J.R.

- 1946 *The Indians of the Southeastern United States*. Smithsonian Institution, Bureau of American Ethnology, Bulletin No. 137. Washington, D.C.

Taylor, R.L. and M.F. Smith (assemblers)

- 1978 *The Report of the Intensive Survey of the Richard B. Russell Dam and Lake, Savannah River, Georgia and South Carolina*. Research Manuscript Series 142. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Thom, B.G.

- 1967 *Coastal and Fluvial Landforms: Horry and Marion Counties, South Carolina*. Coastal Studies Series No. 19, Louisiana State University Press, Baton Rouge.

Townsend, J., J.H. Sprinkle, Jr., and J. Knoerl

- 1993 Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts. Bulletin 36. U.S. Department of the Interior, Washington, D.C.

Trinkley, M.B.

- 1974 Report of the Archaeological Testing of the Love Site, South Carolina. *Southern Indian Studies* 25:1-18.
- 1978 *Archaeological Investigations in the Vicinity of the S-84 Bridge Replacement, Bamberg County, South Carolina*. South Carolina Department of Highways and Public Transportation, Columbia.
- 1980a *Investigation of the Woodland Period Along the South Carolina Coast*. Ph.D. dissertation, University of North Carolina, Chapel Hill. University Microfilms, Ann Arbor.
- 1980b A Typology of Thom's Creek Pottery for the South Carolina Coast. *South Carolina Antiquities* 12(1):1-35.

- 1980c *Additional Investigations at Site 38LX5*. South Carolina Department of Public Transportation, Columbia.
- 1981a *Archaeological Testing of the Walnut Grove Shell Midden (38CH260), Charleston County*. U.S.D.A. Forest Service, Columbia.
- 1981b *Studies of Three Woodland Period Sites in Beaufort County, South Carolina*. South Carolina Department of Highways and Public Transportation, Columbia.
- 1983 Ceramics of the Central South Carolina Coast. *South Carolina Antiquities* 15:43-53.
- 1985 The Form and Function of South Carolina's Early Woodland Shell Rings. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens, Jr. and H. Trawick Ward, p. 102-118. University of Alabama Press, University, Alabama.
- 1986 *Indian and Freedmen Occupation at the Fish Haul Site (38BU805), Beaufort County, South Carolina*. Research Series 7. Chicora Foundation, Columbia.
- 1989 *Archaeological Investigations at Haig Point, Webb, and Oak Ridge, Daufuskie Island, South Carolina*. Research Series 15, Chicora Foundation, Columbia.
- 1990a *An Archaeological Context for the South Carolina Woodland Period*. Research Series 22, Chicora Foundation, Columbia.
- 1990b *The Second Phase of Archaeological Survey on Spring Island, Beaufort County, South Carolina: Investigation of Prehistoric and Historic Settlement Patterns on an Isolated Sea Island*. Research Series 20. Chicora Foundation, Columbia.
- 1991 *Further Investigation of Prehistoric and Historic Lifeways on Callawassie and Spring Islands, Beaufort County, South Carolina*. Research Series 23, Chicora Foundation, Columbia.
- 1999 *Archaeological and Historical Overview of the Cooper River Zone Planning Area, East Cooper River Industrial Wastewater Facilities, South Carolina*. Research Contribution 274. Chicora Foundation, Inc., Columbia.
- Trinkley, M., N. Adams, D. Hacker
- 1992 *Landscape and Garden Archaeology at Crowfield Plantation: A Preliminary Examination*. Research Series 32. Chicora Foundation, Inc., Columbia, South Carolina.
- Trinkley, M., D. Hacker, N.P. Adams
- 1992 *Archaeological Data Recovery at 38B833, A St. Catherines and Savannah Shell Midden Site, Hilton Head Island, Beaufort County, South Carolina*. Research Series 27. Chicora Foundation, Inc. Columbia, South Carolina.
- 1995 *Broom Hall Plantation: "A Good One And In A Pleasant Neighborhood"*. Research Series 44. Chicora Foundation, Inc., Columbia.
- Trinkley, M., D. Hacker, S. Fick
- 2003a *Liberty Hall: A Small Eighteenth Century Rice Plantation in Goose Creek, Berkeley County, South Carolina*. Research Series 62. Chicora Foundation, Inc., Columbia.
- Trinkley, M., D. Hacker, N. Southerland
- 2003b *Archaeology at an Eighteenth Century Slave Settlement in Goose Creek, South Carolina*. Research Series 57. Chicora Foundation, Inc., Columbia.

- Waddell, E.
1980 *Indians of the South Carolina Lowcountry, 1562-1751*. Reprint Company, Spartanburg, South Carolina.
- Walthall, John A.
1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama and the Middle South*. University of Alabama Press, University.
- Weir, R.M.
1983 *Colonial South Carolina*. KTO Press, Millwood, New York.
- Wheaton, T.R., Jr., A. Friedlander, and P. Garrow
1983 *Yaughan and Curriboo Plantations: Studies in Afro-American Archaeology*. Soil Systems, Inc., Atlanta.
- Whitley, T.G.
2001 Using GIS to Model Potential Site Areas at the Charleston Naval Weapons Station, South Carolina: An Alternate Approach to Inferential Predictive Modeling. Paper presented at GIS and Archaeological Predictive Modeling: Large-Scale Approaches to Establish a Baseline for Site Location Models, Argonne National Laboratory, Illinois.
- Williams, I.G., J.S. Cable, C. Abrams, M.B. Reed
1992a *An Archaeological Survey of 3,720 Acres in the Bethera Area, Wambaw and Witherbee Ranger Districts, Francis Marion National Forest*. Technical Report 71. New South Associates, Stone Mountain, Georgia.
1992b *An Archaeological Survey of 2,195 Acres in the Cainhoj Area, Wambaw and Witherbee Districts, Francis Marion National Forest*. Technical Report 66. New South Associates, Stone Mountain, Georgia.
- Williams, S.B. (editor)
1968 *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.* Papers of the Peabody Museum of Archaeology and Ethnology 58.
- Williams, S.B. and J.B. Stoltman
1965 An Outline of Southeastern United States Prehistory with Particular Emphasis on the Paleo-Indian Era. In *Quaternary History of the United States*, edited by H.E. Wright, Jr. and D.G. Frey, pp. 669-683. Princeton University Press, Princeton.
- Wise, W.
2004 Conservation Fund buys Bonneau Tract for \$47 M" *The Post and Courier*. Charleston, S.C.
- Wood, P.H.
1974 *Black Majority: Negroes in Colonial South Carolina from 1670 through the Stono Rebellion*. W.W. Norton, New York.

APPENDIX A: SECTION 106, NATIONAL
HISTORIC PRESERVATION ACT OF 1966,
AS AMENDED

Section 106 Regulations (Effective January 11, 2001)

What follows are the Section 106 regulations, 36 CFR Part 800 ("Protection of Historic Properties"),
of the National Historic Preservation Act.

36 CFR PART 800—PROTECTION OF HISTORIC PROPERTIES

Subpart A—Purposes and Participants

Sec.

800.1 **III** Purposes.

800.2 **III** Participants in the Section 106 process.

Subpart B—The Section 106 Process

800.3 **III** Initiation of the Section 106 process.

800.4 **III** Identification of historic properties.

800.5 **III** Assessment of adverse effects.

800.6 **III** Resolution of adverse effects.

800.7 **III** Failure to resolve adverse effects.

800.8 **III** Coordination with the National Environmental Policy Act.

800.9 **III** Council review of Section 106 compliance.

800.10 **III** Special requirements for protecting National Historic Landmarks.

800.11 **III** Documentation standards.

800.12 **III** Emergency situations.

800.13 **III** Post-review discoveries.

Subpart C—Program Alternatives

800.14 **III** Federal agency program alternatives.

800.15 **III** Tribal, State, and local program alternatives. [Reserved]

800.16 **III** Definitions.

Appendix A to Part 800—Criteria for Council involvement in reviewing individual Section 106 cases

Authority: 16 U.S.C. 470s.

Subpart A—Purposes and Participants

Sect. 800.1 Purposes.

III(h) *Purposes of the section 106 process.* Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Council a reasonable opportunity to comment on such undertakings. The procedures in this part define how Federal agencies meet these statutory responsibilities. The section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

III(b) *Relation to other provisions of the act.* Section 106 is related to other provisions of the act designed to further the national policy of historic preservation. References to those provisions are included in this part to identify circumstances where they may affect actions taken to meet section 106 requirements. Such provisions may have their own implementing regulations or guidelines and are not intended to be implemented by the procedures in this part except insofar as they relate to the section 106 process.

Guidelines, policies, and procedures issued by other agencies, including the Secretary, have been cited in this part for ease of access and are not incorporated by reference.

(c) Timing. The agency official must complete the section 106 process “prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license.” This does not prohibit agency official from conducting or authorizing nondestructive project planning activities before completing compliance with section 106, provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties. The agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking.

Sec. 800.2 Participants in the Section 106 process.

(h) Agency official. It is the statutory obligation of the Federal agency to fulfill the requirements of section 106 and to ensure that an agency official with jurisdiction over an undertaking takes legal and financial responsibility for section 106 compliance in accordance with subpart B of this part. The agency official has approval authority for the undertaking and can commit the Federal agency to take appropriate action for a specific undertaking as a result of section 106 compliance. For the purposes of subpart C of this part, the agency official has the authority to commit the Federal agency to any obligation it may assume in the implementation of a program alternative. The agency official may be a State, local, or tribal government official who has been delegated legal responsibility for compliance with section 106 in accordance with Federal law.

(i) Professional standards. Section 112(a)(1)(A) of the act requires each Federal agency responsible for the protection of historic resources, including archeological resources, to ensure that all actions taken by employees or contractors of the agency shall meet professional standards under regulations developed by the Secretary.

(j) Lead Federal agency. If more than one Federal agency is involved in an undertaking, some or all the agencies may designate a lead Federal agency, which shall identify the appropriate official to serve as the agency official who shall act on their behalf, fulfilling their collective responsibilities under section 106. Those Federal agencies that do not designate a lead Federal agency remain individually responsible for their compliance with this part.

(k) Use of contractors. Consistent with applicable conflict of interest laws, the agency official may use the services of applicants, consultants, or designees to prepare information, analyses and recommendations under this part. The agency official remains legally responsible for all required findings and determinations. If a document or study is prepared by a non-Federal party, the agency official is responsible for ensuring that its content meets applicable standards and guidelines.

(l) Consultation. The agency official shall involve the consulting parties described in paragraph (c) of this section in findings and determinations made during the section 106 process. The agency official should plan consultations appropriate to the scale of the undertaking and the scope of Federal involvement and coordinated with other requirements of other statutes, as applicable, such as the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, the Archeological Resources Protection Act, and agency-specific legislation. The Council encourages the agency official to use to the extent possible existing agency procedures and mechanisms to fulfill the consultation requirements of this part.

(b) Council. The Council issues regulations to implement section 106, provides guidance and advice on the application of the procedures in this part, and generally oversees the operation of the section 106 process. The Council also consults with and comments to agency officials on individual undertakings and programs that affect historic properties.

106.11) Council entry into the section 106 process. When the Council determines that its involvement is necessary to ensure that the purposes of section 106 and the act are met, the Council may enter the section 106 process. Criteria guiding Council decisions to enter the section 106 process are found in appendix A to this part. The Council will document that the criteria have been met and notify the parties to the section 106 process as required by this part.

106.12) Council assistance. Participants in the section 106 process may seek advice, guidance and assistance from the Council on the application of this part to specific undertakings, including the resolution of disagreements, whether or not the Council is formally involved in the review of the undertaking. If questions arise regarding the conduct of the section 106 process, participants are encouraged to obtain the Council's advice on completing the process.

106.13) Consulting parties. The following parties have consultative roles in the section 106 process.

106.11) State historic preservation officer.

106.11) The State historic preservation officer (SHPO) reflects the interests of the State and its citizens in the preservation of their cultural heritage. In accordance with section 101(b)(3) of the act, the SHPO advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taking into consideration at all levels of planning and development.

106.11(i) If an Indian tribe has assumed the functions of the SHPO in the section 106 process for undertakings on tribal lands, the SHPO shall participate as a consulting party if the undertaking takes place on tribal lands but affects historic properties off tribal lands, if requested in accordance with Sec. 800.3(c)(1), or if the Indian tribe agrees to include the SHPO pursuant to Sec. 800.3(f)(3).

106.12) Indian tribes and Native Hawaiian organizations.

106.11) Consultation on tribal lands.

106.11(A) Tribal historic preservation officer. For a tribe that has assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act, the tribal historic preservation officer (THPO) appointed or designated in accordance with the act is the official representative for the purposes of section 106. The agency official shall consult with the THPO in lieu of the SHPO regarding undertakings occurring on or affecting historic properties on tribal lands.

106.11(B) Tribes that have not assumed SHPO functions. When an Indian tribe has not assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act, the agency official shall consult with a representative designated by such Indian tribe in addition to the SHPO regarding undertakings occurring on or affecting historic properties on its tribal lands. Such Indian tribes have the same rights of consultation and concurrence that the THPOs are given throughout subpart B of this part, except that such consultations shall be in addition to and on the same basis as consultation with the SHPO.

106.11(i) Consultation on historic properties of significance to Indian tribes and Native Hawaiian organizations. Section 101(d)(6)(B) of the act requires the agency official to consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking. This requirement applies regardless of the location of the historic property. Such Indian tribe or Native Hawaiian organization shall be a consulting party.

106.11(A) The agency official shall ensure that consultation in the section 106 process provides the Indian tribe or Native Hawaiian organization a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects. It is the responsibility of the agency official to make a

reasonable and good faith effort to identify Indian tribes and Native Hawaiian organizations that shall be consulted in the section 106 process. Consultation should commence early in the planning process, in order to identify and discuss relevant preservation issues and resolve concerns about the confidentiality of information on historic properties.

(B) The Federal Government has a unique legal relationship with Indian tribes set forth in the Constitution of the United States, treaties, statutes, and court decisions. Consultation with Indian tribes should be conducted in a sensitive manner respectful of tribal sovereignty. Nothing in this part alters, amends, repeals, interprets, or modifies tribal sovereignty, any treaty rights, or other rights of an Indian tribe, or preempts, modifies, or limits the exercise of any such rights.

(C) Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes. The agency official shall consult with representatives designated or identified by the tribal government or the governing body of a Native Hawaiian organization. Consultation with Indian tribes and Native Hawaiian organizations should be conducted in a manner sensitive to the concerns and needs of the Indian tribe or Native Hawaiian organization.

(D) When Indian tribes and Native Hawaiian organizations attach religious and cultural significance to historic properties off tribal lands, section 101(d)(6)(B) of the act requires Federal agencies to consult with such Indian tribes and Native Hawaiian organizations in the section 106 process. Federal agencies should be aware that frequently historic properties of religious and cultural significance are located on ancestral, aboriginal, or ceded lands of Indian tribes and Native Hawaiian organizations and should consider that when complying with the procedures in this part.

(E) An Indian tribe or a Native Hawaiian organization may enter into an agreement with an agency official that specifies how they will carry out responsibilities under this part, including concerns over the confidentiality of information. An agreement may cover all aspects of tribal participation in the section 106 process, provided that no modification may be made in the roles of other parties to the section 106 process without their consent. An agreement may grant the Indian tribe or Native Hawaiian organization additional rights to participate or concur in agency decisions in the section 106 process beyond those specified in subpart B of this part. The agency official shall provide a copy of any such agreement to the Council and the appropriate SHPOs.

(F) An Indian tribe that has not assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act may notify the agency official in writing that it is waiving its rights under Sec. 800.6(c)(1) to execute a memorandum of agreement.

(3) Representatives of local governments. A representative of a local government with jurisdiction over the area in which the effects of an undertaking may occur is entitled to participate as a consulting party. Under other provisions of Federal law, the local government may be authorized to act as the agency official for purposes of section 106.

(4) Applicants for Federal assistance, permits, licenses, and other approvals. An applicant for Federal assistance or for a Federal permit, license, or other approval is entitled to participate as a consulting party as defined in this part. The agency official may authorize an applicant or group of applicants to initiate consultation with the SHPO/THPO and others, but remains legally responsible for all findings and determinations charged to the agency official. The agency official shall notify the SHPO/THPO when an applicant or group of applicants is so authorized. A Federal agency may authorize all applicants in a specific program pursuant to this section by providing notice to all SHPO/THPOs. Federal agencies that provide authorizations to applicants remain responsible for their government-to-government relationships with Indian tribes.

(5) Additional consulting parties. Certain individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties.

101(d) *The public.*

101(e) *Nature of involvement.* The views of the public are essential to informed Federal decisionmaking in the section 106 process. The agency official shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties, the likely interest of the public in the effects on historic properties, confidentiality concerns of private individuals and businesses, and the relationship of the Federal involvement to the undertaking.

101(f) *Providing notice and information.* The agency official must, except where appropriate to protect confidentiality concerns of affected parties, provide the public with information about an undertaking and its effects on historic properties and seek public comment and input. Members of the public may also provide views on their own initiative for the agency official to consider in decisionmaking.

101(g) *Use of agency procedures.* The agency official may use the agency's procedures for public involvement under the National Environmental Policy Act or other program requirements in lieu of public involvement requirements in subpart B of this part, if they provide adequate opportunities for public involvement consistent with this subpart.

Subpart B—The Section 106 Process

Sec. 800.301 Initiation of the section 106 process.

301(a) *Establish undertaking.* The agency official shall determine whether the proposed Federal action is an undertaking as defined in Sec. 800.16(y) and, if so, whether it is a type of activity that has the potential to cause effects on historic properties.

301(b) *No potential to cause effects.* If the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, the agency official has no further obligations under section 106 or this part.

301(c) *Program alternatives.* If the review of the undertaking is governed by a Federal agency program alternative established under Sec. 800.14 or a programmatic agreement in existence before January 11, 2001, the agency official shall follow the program alternative.

301(d) *Coordinate with other reviews.* The agency official should coordinate the steps of the section 106 process, as appropriate, with the overall planning schedule for the undertaking and with any reviews required under other authorities such as the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, the Archeological Resources Protection Act, and agency-specific legislation, such as section 4(f) of the Department of Transportation Act. Where consistent with the procedures in this subpart, the agency official may use information developed for other reviews under Federal, State, or tribal law to meet the requirements of section 106.

301(e) *Identify the appropriate SHPO and/or THPO.* As part of its initial planning, the agency official shall determine the appropriate SHPO or SHPOs to be involved in the section 106 process. The agency official shall also determine whether the undertaking may occur on or affect historic properties on any tribal lands and, if so, whether a THPO has assumed the duties of the SHPO. The agency official shall then initiate consultation with the appropriate officer or officers.

301(f) *Tribal assumption of SHPO responsibilities.* Where an Indian tribe has assumed the section 106 responsibilities of the SHPO on tribal lands pursuant to section 101(d)(2) of the act, consultation for undertakings occurring on tribal land or for effects on tribal land is with the THPO for the Indian tribe in lieu of the SHPO. Section 101(d)(2)(D)(iii) of the act authorizes owners of properties on tribal lands which are neither owned by a member of the tribe nor held in trust by the Secretary for the benefit of the

tribe to request the SHPO to participate in the section 106 process in addition to the THPO.

800.2(d) Undertakings involving more than one State. If more than one State is involved in an undertaking, the involved SHPOs may agree to designate a lead SHPO to act on their behalf in the section 106 process, including taking actions that would conclude the section 106 process under this subpart.

800.3) Conducting consultation. The agency official should consult with the SHPO/THPO in a manner appropriate to the agency planning process for the undertaking and to the nature of the undertaking and its effects on historic properties.

800.4) Failure of the SHPO/THPO to respond. If the SHPO/THPO fails to respond within 30 days of receipt of a request for review of a finding or determination, the agency official may either proceed to the next step in the process based on the finding or determination or consult with the Council in lieu of the SHPO/THPO. If the SHPO/THPO re-enters the Section 106 process, the agency official shall continue the consultation without being required to reconsider previous findings or determinations.

800(d) Consultation on tribal lands. Where the Indian tribe has not assumed the responsibilities of the SHPO on tribal lands, consultation with the Indian tribe regarding undertakings occurring on such tribe's lands or effects on such tribal lands shall be in addition to and on the same basis as consultation with the SHPO. If the SHPO has withdrawn from the process, the agency official may complete the section 106 process with the Indian tribe and the Council, as appropriate. An Indian tribe may enter into an agreement with a SHPO or SHPOs specifying the SHPO's participation in the section 106 process for undertakings occurring on or affecting historic properties on tribal lands.

800(e) Plan to involve the public. In consultation with the SHPO/THPO, the agency official shall plan for involving the public in the section 106 process. The agency official shall identify the appropriate points for seeking public input and for notifying the public of proposed actions, consistent with Sec. 800.2(d).

800(f) Identify other consulting parties. In consultation with the SHPO/THPO, the agency official shall identify any other parties entitled to be consulting parties and invite them to participate as such in the section 106 process. The agency official may invite others to participate as consulting parties as the section 106 process moves forward.

800(i) Involving local governments and applicants. The agency official shall invite any local governments or applicants that are entitled to be consulting parties under Sec. 800.2(c).

800(j) Involving Indian tribes and Native Hawaiian organizations. The agency official shall make a reasonable and good faith effort to identify any Indian tribes or Native Hawaiian organizations that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties. Such Indian tribe or Native Hawaiian organization that requests in writing to be a consulting party shall be one.

800.3) Requests to be consulting parties. The agency official shall consider all written requests of individuals and organizations to participate as consulting parties and, in consultation with the SHPO/THPO and any Indian tribe upon whose tribal lands an undertaking occurs or affects historic properties, determine which should be consulting parties.

800(g) Expediting consultation. A consultation by the agency official with the SHPO/THPO and other consulting parties may address multiple steps in Secs. 800.3 through 800.6 where the agency official and the SHPO/THPO agree it is appropriate as long as the consulting parties and the public have an adequate opportunity to express their views as provided in Sec. 800.2(d).

Sec. 800.4 Identification of historic properties.

800(a) Determine scope of identification efforts. In consultation with the SHPO/THPO, the agency official

shall:

(1) Determine and document the area of potential effects, as defined in Sec. 800.16(d);

(2) Review existing information on historic properties within the area of potential effects, including any data concerning possible historic properties not yet identified;

(3) Seek information, as appropriate, from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, and identify issues relating to the undertaking's potential effects on historic properties; and

(4) Gather information from any Indian tribe or Native Hawaiian organization identified pursuant to Sec. 800.3(f) to assist in identifying properties, including those located off tribal lands, which may be of religious and cultural significance to them and may be eligible for the National Register, recognizing that an Indian tribe or Native Hawaiian organization may be reluctant to divulge specific information regarding the location, nature, and activities associated with such sites. The agency official should address concerns raised about confidentiality pursuant to Sec. 800.11(c).

(b) Identify historic properties. Based on the information gathered under paragraph (a) of this section, and in consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to properties within the area of potential effects, the agency official shall take the steps necessary to identify historic properties within the area of potential effects.

(1) Level of effort. The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. The agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects. The Secretary's standards and guidelines for identification provide guidance on this subject. The agency official should also consider other applicable professional, State, tribal, and local laws, standards, and guidelines. The agency official shall take into account any confidentiality concerns raised by Indian tribes or Native Hawaiian organizations during the identification process.

(2) Phased identification and evaluation. Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. The agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a memorandum of agreement executed pursuant to Sec. 800.6, a programmatic agreement executed pursuant to Sec. 800.14(b), or the documents used by an agency official to comply with the National Environmental Policy Act pursuant to Sec. 800.8. The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the SHPO/THPO and any other consulting parties. As specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties in accordance with paragraphs (b)(1) and (c) of this section.

(c) Evaluate historic significance.

(1) Apply National Register criteria. In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified properties and guided by the Secretary's standards and guidelines for evaluation, the agency official shall apply the National Register criteria (36 CFR part 63) to properties identified within the area of potential effects that have not been previously evaluated for National Register eligibility. The passage of time, changing perceptions of significance, or incomplete prior evaluations may require the agency official to reevaluate

properties previously determined eligible or ineligible. The agency official shall acknowledge that Indian tribes and Native Hawaiian organizations possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them.

(2) Determine whether a property is eligible. If the agency official determines any of the National Register criteria are met and the SHPO/THPO agrees, the property shall be considered eligible for the National Register for section 106 purposes. If the agency official determines the criteria are not met and the SHPO/THPO agrees, the property shall be considered not eligible. If the agency official and the SHPO/THPO do not agree, or if the Council or the Secretary so request, the agency official shall obtain a determination of eligibility from the Secretary pursuant to 36 CFR part 63. If an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to a property off tribal lands does not agree, it may ask the Council to request the agency official to obtain a determination of eligibility.

(d) Results of identification and evaluation.

(1) No historic properties affected. If the agency official finds that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in Sec. 800.16(i), the agency official shall provide documentation of this finding, as set forth in Sec. 800.11(d), to the SHPO/THPO. The agency official shall notify all consulting parties, including Indian tribes and Native Hawaiian organizations, and make the documentation available for public inspection prior to approving the undertaking. If the SHPO/THPO, or the Council if it has entered the section 106 process, does not object within 30 days of receipt of an adequately documented finding, the agency official's responsibilities under section 106 are fulfilled.

(2) Historic properties affected. If the agency official finds that there are historic properties which may be affected by the undertaking or the SHPO/THPO or the Council objects to the agency official's finding under paragraph (d)(1) of this section, the agency official shall notify all consulting parties, including Indian tribes or Native Hawaiian organizations, invite their views on the effects and assess adverse effects, if any, in accordance with Sec. 800.5.

Sec. 800.5 Assessment of adverse effects.

(a) Apply criteria of adverse effect. In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the area of potential effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public.

(1) Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

(2) Examples of adverse effects. Adverse effects on historic properties include, but are not limited to:

(i) Physical destruction of or damage to all or part of the property;

(i) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

800.11(ii) Removal of the property from its historic location;

800.11(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

800.11(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

800.11(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

800.11(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

800.11(3) *Phased application of criteria.* Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process in applying the criteria of adverse effect consistent with phased identification and evaluation efforts conducted pursuant to Sec. 800.4(b)(2).

800.11(b) *Finding of no adverse effect.* The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of paragraph (a)(1) of this section or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

800.11(c) *Consulting party review.* If the agency official proposes a finding of no adverse effect, the agency official shall notify all consulting parties of the finding and provide them with the documentation specified in Sec. 800.11(e). The SHPO/THPO shall have 30 days from receipt to review the finding.

800.11(d) *Agreement with finding.* Unless the Council is reviewing the finding pursuant to Sec. 800.5(c)(3), the agency official may proceed if the SHPO/THPO agrees with the finding. The agency official shall carry out the undertaking in accordance with Sec. 800.5(d)(1). Failure of the SHPO/THPO to respond within 30 days from receipt of the finding shall be considered agreement of the SHPO/THPO with the finding.

800.11(e) *Disagreement with finding.*

800.11(f) If the SHPO/THPO or any consulting party disagrees within the 30-day review period, it shall specify the reasons for disagreeing with the finding. The agency official shall either consult with the party to resolve the disagreement, or request the Council to review the finding pursuant to paragraph (c)(3) of this section.

800.11(i) The agency official should seek the concurrence of any Indian tribe or Native Hawaiian organization that has made known to the agency official that it attaches religious and cultural significance to a historic property subject to the finding. If such Indian tribe or Native Hawaiian organization disagrees with the finding, it may within the 30-day review period specify the reasons for disagreeing with the finding and request the Council to review the finding pursuant to paragraph (c)(3) of this section.

800.11(ii) If the Council on its own initiative so requests within the 30-day review period, the agency official shall submit the finding, along with the documentation specified in Sec. 800.11(e), for review pursuant to paragraph (c)(3) of this section. A Council decision to make such a request shall be guided by the criteria in appendix A to this part.

800.11(B) *Council review of findings.* When a finding is submitted to the Council pursuant to paragraph (c)(2)

of this section, the agency official shall include the documentation specified in Sec. 800.11(e). The Council shall review the finding and notify the agency official of its determination as to whether the adverse effect criteria have been correctly applied within 15 days of receiving the documented finding from the agency official. The Council shall specify the basis for its determination. The agency official shall proceed in accordance with the Council's determination. If the Council does not respond within 15 days of receipt of the finding, the agency official may assume concurrence with the agency official's findings and proceed accordingly.

800.11(d) Results of assessment.

800.11(1) No adverse effect. The agency official shall maintain a record of the finding and provide information on the finding to the public on request, consistent with the confidentiality provisions of Sec. 800.11(c). Implementation of the undertaking in accordance with the finding as documented fulfills the agency official's responsibilities under section 106 and this part. If the agency official will not conduct the undertaking as proposed in the finding, the agency official shall reopen consultation under paragraph (a) of this section.

800.11(2) Adverse effect. If an adverse effect is found, the agency official shall consult further to resolve the adverse effect pursuant to Sec. 800.6.

Sec. 800.6 Resolution of adverse effects.

800.6(a) Continue consultation. The agency official shall consult with the SHPO/THPO and other consulting parties, including Indian tribes and Native Hawaiian organizations, to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties.

800.6(1) Notify the Council and determine Council participation. The agency official shall notify the Council of the adverse effect finding by providing the documentation specified in Sec. 800.11(e).

800.6(1) The notice shall invite the Council to participate in the consultation when:

800.6(1)(A) The agency official wants the Council to participate;

800.6(1)(B) The undertaking has an adverse effect upon a National Historic Landmark; or

800.6(1)(C) A programmatic agreement under Sec. 800.14(b) will be prepared;

800.6(1)(i) The SHPO/THPO, an Indian tribe or Native Hawaiian organization, or any other consulting party may at any time independently request the Council to participate in the consultation.

800.6(1)(ii) The Council shall advise the agency official and all consulting parties whether it will participate within 15 days of receipt of notice or other request. Prior to entering the process, the Council shall provide written notice to the agency official and the consulting parties that its decision to participate meets the criteria set forth in appendix A to this part. The Council shall also advise the head of the agency of its decision to enter the process. Consultation is conducted in accordance with paragraph (b)(2) of this section.

800.6(1)(v) If the Council does not join the consultation, the agency official shall proceed with consultation in accordance with paragraph (b)(1) of this section.

800.6(2) Involve consulting parties. In addition to the consulting parties identified under Sec. 800.3(f), the agency official, the SHPO/THPO and the Council, if participating, may agree to invite other individuals or organizations to become consulting parties. The agency official shall invite any individual or organization that will assume a specific role or responsibility in a memorandum of agreement to participate as a consulting party.

800.11(3) Provide documentation. The agency official shall provide to all consulting parties the documentation specified in Sec. 800.11(e), subject to the confidentiality provisions of Sec. 800.11(c), and such other documentation as may be developed during the consultation to resolve adverse effects.

800.11(4) Involve the public. The agency official shall make information available to the public, including the documentation specified in Sec. 800.11(e), subject to the confidentiality provisions of Sec. 800.11(c). The agency official shall provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking. The agency official should use appropriate mechanisms, taking into account the magnitude of the undertaking and the nature of its effects upon historic properties, the likely effects on historic properties, and the relationship of the Federal involvement to the undertaking to ensure that the public's views are considered in the consultation. The agency official should also consider the extent of notice and information concerning historic preservation issues afforded the public at earlier steps in the section 106 process to determine the appropriate level of public involvement when resolving adverse effects so that the standards of Sec. 800.2(d) are met.

800.11(5) Restrictions on disclosure of information. Section 304 of the act and other authorities may limit the disclosure of information under paragraphs (a)(3) and (a)(4) of this section. If an Indian tribe or Native Hawaiian organization objects to the disclosure of information or if the agency official believes that there are other reasons to withhold information, the agency official shall comply with Sec. 800.11(c) regarding the disclosure of such information.

800.11(b) Resolve adverse effects.

800.11(1) Resolution without the Council.

800.11(i) The agency official shall consult with the SHPO/THPO and other consulting parties to seek ways to avoid, minimize or mitigate the adverse effects.

800.11(i) The agency official may use standard treatments established by the Council under Sec. 800.14(d) as a basis for a memorandum of agreement.

800.11(ii) If the Council decides to join the consultation, the agency official shall follow paragraph (b)(2) of this section.

800.11(v) If the agency official and the SHPO/THPO agree on how the adverse effects will be resolved, they shall execute a memorandum of agreement. The agency official must submit a copy of the executed memorandum of agreement, along with the documentation specified in Sec. 800.11(f), to the Council prior to approving the undertaking in order to meet the requirements of section 106 and this subpart.

800.11(v) If the agency official, and the SHPO/THPO fail to agree on the terms of a memorandum of agreement, the agency official shall request the Council to join the consultation and provide the Council with the documentation set forth in Sec. 800.11(g). If the Council decides to join the consultation, the agency official shall proceed in accordance with paragraph (b)(2) of this section. If the Council decides not to join the consultation, the Council will notify the agency and proceed to comment in accordance with Sec. 800.7(c).

800.11(2) Resolution with Council participation. If the Council decides to participate in the consultation, the agency official shall consult with the SHPO/THPO, the Council, and other consulting parties, including Indian tribes and Native Hawaiian organizations under Sec. 800.2(c)(3), to seek ways to avoid, minimize or mitigate the adverse effects. If the agency official, the SHPO/THPO, and the Council agree on how the adverse effects will be resolved, they shall execute a memorandum of agreement.

800.11(c) Memorandum of agreement. A memorandum of agreement executed and implemented pursuant to this section evidences the agency official's compliance with section 106 and this part and shall govern the undertaking and all of its parts. The agency official shall ensure that the undertaking is carried out in

accordance with the memorandum of agreement.

800.7(1) Signatories. The signatories have sole authority to execute, amend or terminate the agreement in accordance with this subpart.

800.7(a) The agency official and the SHPO/THPO are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(1) of this section.

800.7(a)(i) The agency official, the SHPO/THPO, and the Council are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(2) of this section.

800.7(a)(ii) The agency official and the Council are signatories to a memorandum of agreement executed pursuant to Sec. 800.7(a)(2).

800.7(2) Invited signatories.

800.7(a) The agency official may invite additional parties to be signatories to a memorandum of agreement. Any such party that signs the memorandum of agreement shall have the same rights with regard to seeking amendment or termination of the memorandum of agreement as other signatories.

800.7(a)(i) The agency official may invite an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties located off tribal lands to be a signatory to a memorandum of agreement concerning such properties.

800.7(a)(ii) The agency official should invite any party that assumes a responsibility under a memorandum of agreement to be a signatory.

800.7(a)(v) The refusal of any party invited to become a signatory to a memorandum of agreement pursuant to paragraph (c)(2) of this section does not invalidate the memorandum of agreement.

800.7(3) Concurrence by others. The agency official may invite all consulting parties to concur in the memorandum of agreement. The signatories may agree to invite others to concur. The refusal of any party invited to concur in the memorandum of agreement does not invalidate the memorandum of agreement.

800.7(4) Reports on implementation. Where the signatories agree it is appropriate, a memorandum of agreement shall include a provision for monitoring and reporting on its implementation.

800.7(5) Duration. A memorandum of agreement shall include provisions for termination and for reconsideration of terms if the undertaking has not been implemented within a specified time.

800.7(6) Discoveries. Where the signatories agree it is appropriate, a memorandum of agreement shall include provisions to deal with the subsequent discovery or identification of additional historic properties affected by the undertaking.

800.7(7) Amendments. The signatories to a memorandum of agreement may amend it. If the Council was not a signatory to the original agreement and the signatories execute an amended agreement, the agency official shall file it with the Council.

800.7(8) Termination. If any signatory determines that the terms of a memorandum of agreement cannot be or are not being carried out, the signatories shall consult to seek amendment of the agreement. If the agreement is not amended, any signatory may terminate it. The agency official shall either execute a memorandum of agreement with signatories under paragraph (c)(1) of this section or request the comments of the Council under Sec. 800.7(a).

800.7(9) Copies. The agency official shall provide each consulting party with a copy of any memorandum of agreement executed pursuant to this subpart.

Sec. 800.7 Failure to resolve adverse effects.

(a) *Termination of consultation.* After consulting to resolve adverse effects pursuant to Sec. 800.6(b)(2), the agency official, the SHPO/THPO, or the Council may determine that further consultation will not be productive and terminate consultation. Any party that terminates consultation shall notify the other consulting parties and provide them the reasons for terminating in writing.

(1) If the agency official terminates consultation, the head of the agency or an Assistant Secretary or other officer with major department-wide or agency-wide responsibilities shall request that the Council comment pursuant to paragraph (c) of this section and shall notify all consulting parties of the request.

(2) If the SHPO terminates consultation, the agency official and the Council may execute a memorandum of agreement without the SHPO's involvement.

(3) If a THPO terminates consultation regarding an undertaking occurring on or affecting historic properties on its tribal lands, the Council shall comment pursuant to paragraph (c) of this section.

(4) If the Council terminates consultation, the Council shall notify the agency official, the agency's Federal preservation officer and all consulting parties of the termination and comment under paragraph (c) of this section. The Council may consult with the agency's Federal preservation officer prior to terminating consultation to seek to resolve issues concerning the undertaking and its effects on historic properties.

(b) *Comments without termination.* The Council may determine that it is appropriate to provide additional advisory comments upon an undertaking for which a memorandum of agreement will be executed. The Council shall provide them to the agency official when it executes the memorandum of agreement.

(c) *Comments by the Council.*

(1) *Preparation.* The Council shall provide an opportunity for the agency official, all consulting parties, and the public to provide their views within the time frame for developing its comments. Upon request of the Council, the agency official shall provide additional existing information concerning the undertaking and assist the Council in arranging an onsite inspection and an opportunity for public participation.

(2) *Timing.* The Council shall transmit its comments within 45 days of receipt of a request under paragraph (a)(1) or (a)(3) of this section or Sec. 800.8(c)(3), or termination by the Council under Sec. 800.6(b)(1)(v) or paragraph (a)(4) of this section, unless otherwise agreed to by the agency official.

(3) *Transmittal.* The Council shall provide its comments to the head of the agency requesting comment with copies to the agency official, the agency's Federal preservation officer, all consulting parties, and others as appropriate.

(4) *Response to Council comment.* The head of the agency shall take into account the Council's comments in reaching a final decision on the undertaking. Section 110(l) of the act directs that the head of the agency shall document this decision and may not delegate his or her responsibilities pursuant to section 106. Documenting the agency head's decision shall include:

(i) Preparing a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's comments and providing it to the Council prior to approval of the undertaking;

(ii) Providing a copy of the summary to all consulting parties; and

(iii) Notifying the public and making the record available for public inspection.

Sec. 800.8 Coordination With the National Environmental Policy Act.

(a) General principles.

(1) Early coordination. Federal agencies are encouraged to coordinate compliance with section 106 and the procedures in this part with any steps taken to meet the requirements of the National Environmental Policy Act (NEPA). Agencies should consider their section 106 responsibilities as early as possible in the NEPA process, and plan their public participation, analysis, and review in such a way that they can meet the purposes and requirements of both statutes in a timely and efficient manner. The determination of whether an undertaking is a “major Federal action significantly affecting the quality of the human environment,” and therefore requires preparation of an environmental impact statement (EIS) under NEPA, should include consideration of the undertaking’s likely effects on historic properties. A finding of adverse effect on a historic property does not necessarily require an EIS under NEPA.

(2) Consulting party roles. SHPO/THPOs, Indian tribes, and Native Hawaiian organizations, other consulting parties, and organizations and individuals who may be concerned with the possible effects of an agency action on historic properties should be prepared to consult with agencies early in the NEPA process, when the purpose of and need for the proposed action as well as the widest possible range of alternatives are under consideration.

(3) Inclusion of historic preservation issues. Agency officials should ensure that preparation of an environmental assessment (EA) and finding of no significant impact (FONSI) or an EIS and record of decision (ROD) includes appropriate scoping, identification of historic properties, assessment of effects upon them, and consultation leading to resolution of any adverse effects.

(b) Actions categorically excluded under NEPA. If a project, activity or program is categorically excluded from NEPA review under an agency’s NEPA procedures, the agency official shall determine if it still qualifies as an undertaking requiring review under section 106 pursuant to Sec. 800.3(a). If so, the agency official shall proceed with section 106 review in accordance with the procedures in this subpart.

(c) Use of the NEPA process for section 106 purposes. An agency official may use the process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with section 106 in lieu of the procedures set forth in Secs. 800.3 through 800.6 if the agency official has notified in advance the SHPO/THPO and the Council that it intends to do so and the following standards are met.

(1) Standards for developing environmental documents to comply with Section 106. During preparation of the EA or draft EIS (DEIS) the agency official shall:

(i) Identify consulting parties either pursuant to Sec. 800.3(f) or through the NEPA scoping process with results consistent with Sec. 800.3(f);

(ii) Identify historic properties and assess the effects of the undertaking on such properties in a manner consistent with the standards and criteria of Secs. 800.4 through 800.5, provided that the scope and timing of these steps may be phased to reflect the agency official’s consideration of project alternatives in the NEPA process and the effort is commensurate with the assessment of other environmental factors;

(iii) Consult regarding the effects of the undertaking on historic properties with the SHPO/THPO, Indian tribes, and Native Hawaiian organizations that might attach religious and cultural significance to affected historic properties, other consulting parties, and the Council, where appropriate, during NEPA scoping, environmental analysis, and the preparation of NEPA documents;

(iv) Involve the public in accordance with the agency’s published NEPA procedures; and

(v) Develop in consultation with identified consulting parties alternatives and proposed measures that

might avoid, minimize or mitigate any adverse effects of the undertaking on historic properties and describe them in the EA or DEIS.

(12) Review of environmental documents.

(1) The agency official shall submit the EA, DEIS, or EIS to the SHPO/THPO, Indian tribes, and Native Hawaiian organizations that might attach religious and cultural significance to affected historic properties, and other consulting parties prior to or when making the document available for public comment. If the document being prepared is a DEIS or EIS, the agency official shall also submit it to the Council.

(i) Prior to or within the time allowed for public comment on the document, a SHPO/THPO, an Indian tribe or Native Hawaiian organization, another consulting party or the Council may object to the agency official that preparation of the EA, DEIS, or EIS has not met the standards set forth in paragraph (c)(1) of this section or that the substantive resolution of the effects on historic properties proposed in an EA, DEIS, or EIS is inadequate. If the agency official receives such an objection, the agency official shall refer the matter to the Council.

(B) *Resolution of objections.* Within 30 days of the agency official's referral of an objection under paragraph (c)(2)(ii) of this section, the Council shall notify the agency official either that it agrees with the objection, in which case the agency official shall enter into consultation in accordance with Sec. 800.6(b)(2) or seek Council comments in accordance with Sec. 800.7(a), or that it disagrees with the objection, in which case the agency official shall continue its compliance with this section. Failure of the Council to respond within the 30 day period shall be considered disagreement with the objection.

(4) *Approval of the undertaking.* If the agency official has found, during the preparation of an EA or EIS that the effects of an undertaking on historic properties are adverse, the agency official shall develop measures in the EA, DEIS, or EIS to avoid, minimize, or mitigate such effects in accordance with paragraph (c)(1)(v) of this section. The agency official's responsibilities under section 106 and the procedures in this subpart shall then be satisfied when either:

(1) A binding commitment to such proposed measures is incorporated in:

(A) The ROD, if such measures were proposed in a DEIS or EIS; or

(B) An MOA drafted in compliance with Sec. 800.6(c); or

(i) The Council has commented under Sec. 800.7 and received the agency's response to such comments.

(5) *Modification of the undertaking.* If the undertaking is modified after approval of the FONSI or the ROD in a manner that changes the undertaking or alters its effects on historic properties, or if the agency official fails to ensure that the measures to avoid, minimize or mitigate adverse effects (as specified in either the FONSI or the ROD, or in the binding commitment adopted pursuant to paragraph (c)(4) of this section) are carried out, the agency official shall notify the Council and all consulting parties that supplemental environmental documents will be prepared in compliance with NEPA or that the procedures in Secs. 800.3 through 800.6 will be followed as necessary.

Sec. 800.9 Council review of section 106 compliance.

(a) *Assessment of agency official compliance for individual undertakings.* The Council may provide to the agency official its advisory opinion regarding the substance of any finding, determination or decision or regarding the adequacy of the agency official's compliance with the procedures under this part. The Council may provide such advice at any time at the request of any individual, agency or organization or on its own initiative. The agency official shall consider the views of the Council in reaching a decision on the matter in question.

(b) *Agency foreclosure of the Council's opportunity to comment.* Where an agency official has failed to complete the requirements of section 106 in accordance with the procedures in this part prior to the approval of an undertaking, the Council's opportunity to comment may be foreclosed. The Council may review a case to determine whether a foreclosure has occurred. The Council shall notify the agency official and the agency's Federal preservation officer and allow 30 days for the agency official to provide information as to whether foreclosure has occurred. If the Council determines foreclosure has occurred, the Council shall transmit the determination to the agency official and the head of the agency. The Council shall also make the determination available to the public and any parties known to be interested in the undertaking and its effects upon historic properties.

(c) *Intentional adverse effects by applicants.*

(1) *Agency responsibility.* Section 110(k) of the act prohibits a Federal agency from granting a loan, loan guarantee, permit, license or other assistance to an applicant who, with intent to avoid the requirements of section 106, has intentionally significantly adversely affected a historic property to which the grant would relate, or having legal power to prevent it, has allowed such significant adverse effect to occur, unless the agency, after consultation with the Council, determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. Guidance issued by the Secretary pursuant to section 110 of the act governs its implementation.

(2) *Consultation with the Council.* When an agency official determines, based on the actions of an applicant, that section 110(k) is applicable and that circumstances may justify granting the assistance, the agency official shall notify the Council and provide documentation specifying the circumstances under which the adverse effects to the historic property occurred and the degree of damage to the integrity of the property. This documentation shall include any views obtained from the applicant, SHPO/THPO, an Indian tribe if the undertaking occurs on or affects historic properties on tribal lands, and other parties known to be interested in the undertaking.

(3) *Opinion of the Council.* Within thirty days of receiving the agency official's notification, unless otherwise agreed to by the agency official, the Council shall provide the agency official with its opinion as to whether circumstances justify granting assistance to the applicant and any possible mitigation of the adverse effects.

(4) *Agency official's consideration of Council's opinion.* The agency official shall consider the Council's opinion in making a decision on whether to grant assistance to the applicant, and shall notify the Council, the SHPO/THPO, and other parties known to be interested in the undertaking prior to granting the assistance.

(5) *Compliance with Section 106.* If an agency official, after consulting with the Council, determines to grant the assistance, the agency official shall comply with Secs. 800.3 through 800.6 to take into account the effects of the undertaking on any historic properties.

(6) *Evaluation of Section 106 operations.* The Council may evaluate the operation of the section 106 process by periodic reviews of how participants have fulfilled their legal responsibilities and how effectively the outcomes reached advance the purposes of the act.

(7) *Information from participants.* Section 203 of the act authorizes the Council to obtain information from Federal agencies necessary to conduct evaluation of the section 106 process. The agency official shall make documentation of agency policies, operating procedures and actions taken to comply with section 106 available to the Council upon request. The Council may request available information and documentation from other participants in the section 106 process.

(8) *Improving the operation of section 106.* Based upon any evaluation of the section 106 process, the Council may make recommendations to participants, the heads of Federal agencies, and the Secretary of actions to improve the efficiency and effectiveness of the process. Where the Council determines that an agency official or a SHPO/THPO has failed to properly carry out the responsibilities assigned under the process in this part, the Council may participate in individual case reviews conducted under such process in addition to the SHPO/THPO for such period that it determines is necessary to improve performance or

correct deficiencies. If the Council finds a pattern of failure by a Federal agency in carrying out its responsibilities under section 106, the Council may review the policies and programs of the agency related to historic preservation pursuant to section 202(a)(6) of the act and recommend methods to improve the effectiveness, coordination, and consistency of those policies and programs with section 106.

Sec. 800.10 Special requirements for protecting National Historic Landmarks.

(a) Statutory requirement. Section 110(f) of the act requires that the agency official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking. When commenting on such undertakings, the Council shall use the process set forth in Secs. 800.6 through 800.7 and give special consideration to protecting National Historic Landmarks as specified in this section.

(b) Resolution of adverse effects. The agency official shall request the Council to participate in any consultation to resolve adverse effects on National Historic Landmarks conducted under Sec. 800.6.

(c) Involvement of the Secretary. The agency official shall notify the Secretary of any consultation involving a National Historic Landmark and invite the Secretary to participate in the consultation where there may be an adverse effect. The Council may request a report from the Secretary under section 213 of the act to assist in the consultation.

(d) Report of outcome. When the Council participates in consultation under this section, it shall report the outcome of the section 106 process, providing its written comments or any memoranda of agreement to which it is a signatory, to the Secretary and the head of the agency responsible for the undertaking.

Sec. 800.11 Documentation standards.

(a) Adequacy of documentation. The agency official shall ensure that a determination, finding, or agreement under the procedures in this subpart is supported by sufficient documentation to enable any reviewing parties to understand its basis. The agency official shall provide such documentation to the extent permitted by law and within available funds. When an agency official is conducting phased identification or evaluation under this subpart, the documentation standards regarding description of historic properties may be applied flexibly. If the Council, or the SHPO/THPO when the Council is not involved, determines the applicable documentation standards are not met, the Council or the SHPO/THPO, as appropriate, shall notify the agency official and specify the information needed to meet the standard. At the request of the agency official or any of the consulting parties, the Council shall review any disputes over whether documentation standards are met and provide its views to the agency official and the consulting parties.

(b) Format. The agency official may use documentation prepared to comply with other laws to fulfill the requirements of the procedures in this subpart, if that documentation meets the standards of this section.

(c) Confidentiality.

(d) Authority to withhold information. Section 304 of the act provides that the head of a Federal agency or other public official receiving grant assistance pursuant to the act, after consultation with the Secretary, shall withhold from public disclosure information about the location, character, or ownership of a historic property when disclosure may cause a significant invasion of privacy; risk harm to the historic property; or impede the use of a traditional religious site by practitioners. When the head of a Federal agency or other public official has determined that information should be withheld from the public pursuant to these criteria, the Secretary, in consultation with such Federal agency head or official, shall determine who may have access to the information for the purposes of carrying out the act.

(e) Consultation with the Council. When the information in question has been developed in the course

of an agency's compliance with this part, the Secretary shall consult with the Council in reaching determinations on the withholding and release of information. The Federal agency shall provide the Council with available information, including views of the SHPO/THPO, Indian tribes and Native Hawaiian organizations, related to the confidentiality concern. The Council shall advise the Secretary and the Federal agency within 30 days of receipt of adequate documentation.

(b) Other authorities affecting confidentiality. Other Federal laws and program requirements may limit public access to information concerning an undertaking and its effects on historic properties. Where applicable, those authorities shall govern public access to information developed in the section 106 process and may authorize the agency official to protect the privacy of non-governmental applicants.

(d) Finding of no historic properties affected. Documentation shall include:

(1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, drawings, as necessary;

(2) A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information pursuant to Sec. 800.4(b); and

(3) The basis for determining that no historic properties are present or affected.

(e) Finding of no adverse effect or adverse effect. Documentation shall include:

(1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;

(2) A description of the steps taken to identify historic properties;

(3) A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;

(4) A description of the undertaking's effects on historic properties;

(5) An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and

(6) Copies or summaries of any views provided by consulting parties and the public.

(f) Memorandum of agreement. When a memorandum of agreement is filed with the Council, the documentation shall include, any substantive revisions or additions to the documentation provided the Council pursuant to Sec. 800.6(a)(1), an evaluation of any measures considered to avoid or minimize the undertaking's adverse effects and a summary of the views of consulting parties and the public.

(g) Requests for comment without a memorandum of agreement. Documentation shall include:

(1) A description and evaluation of any alternatives or mitigation measures that the agency official proposes to resolve the undertaking's adverse effects;

(2) A description of any reasonable alternatives or mitigation measures that were considered but not chosen, and the reasons for their rejection;

(3) Copies or summaries of any views submitted to the agency official concerning the adverse effects of the undertaking on historic properties and alternatives to reduce or avoid those effects; and

(4) Any substantive revisions or additions to the documentation provided the Council pursuant to Sec. 800.6(a)(1).

Sec. 800.12 Emergency situations.

(a) *Agency procedures.* The agency official, in consultation with the appropriate SHPOs/THPOs, affected Indian tribes and Native Hawaiian organizations, and the Council, is encouraged to develop procedures for taking historic properties into account during operations which respond to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or which respond to other immediate threats to life or property. If approved by the Council, the procedures shall govern the agency's historic preservation responsibilities during any disaster or emergency in lieu of Secs. 800.3 through 800.6.

(b) *Alternatives to agency procedures.* In the event an agency official proposes an emergency undertaking as an essential and immediate response to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or another immediate threat to life or property, and the agency has not developed procedures pursuant to paragraph (a) of this section, the agency official may comply with section 106 by:

(1) Following a programmatic agreement developed pursuant to Sec. 800.14(b) that contains specific provisions for dealing with historic properties in emergency situations; or

(2) Notifying the Council, the appropriate SHPO/THPO and any Indian tribe or Native Hawaiian organization that may attach religious and cultural significance to historic properties likely to be affected prior to the undertaking and affording them an opportunity to comment within seven days of notification. If the agency official determines that circumstances do not permit seven days for comment, the agency official shall notify the Council, the SHPO/THPO and the Indian tribe or Native Hawaiian organization and invite any comments within the time available.

(c) *Local governments responsible for section 106 compliance.* When a local government official serves as the agency official for section 106 compliance, paragraphs (a) and (b) of this section also apply to an imminent threat to public health or safety as a result of a natural disaster or emergency declared by a local government's chief executive officer or legislative body, provided that if the Council or SHPO/THPO objects to the proposed action within seven days, the agency official shall comply with Secs. 800.3 through 800.6.

(d) *Applicability.* This section applies only to undertakings that will be implemented within 30 days after the disaster or emergency has been formally declared by the appropriate authority. An agency may request an extension of the period of applicability from the Council prior to the expiration of the 30 days. Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of section 106 and this part.

Sec. 800.13 Post-review discoveries.

(a) *Planning for subsequent discoveries.*

(1) Using a programmatic agreement. An agency official may develop a programmatic agreement pursuant to Sec. 800.14(b) to govern the actions to be taken when historic properties are discovered during the implementation of an undertaking.

(2) *Using agreement documents.* When the agency official's identification efforts in accordance with Sec. 800.4 indicate that historic properties are likely to be discovered during implementation of an undertaking and no programmatic agreement has been developed pursuant to paragraph (a)(1) of this section, the agency official shall include in any finding of no adverse effect or memorandum of agreement a process to resolve any adverse effects upon such properties. Actions in conformance with the process satisfy the agency official's responsibilities under section 106 and this part.

101(b) Discoveries without prior planning. If historic properties are discovered or unanticipated effects on historic properties found after the agency official has completed the section 106 process without establishing a process under paragraph (a) of this section, the agency official shall make reasonable efforts to avoid, minimize or mitigate adverse effects to such properties and:

101(i) If the agency official has not approved the undertaking or if construction on an approved undertaking has not commenced, consult to resolve adverse effects pursuant to Sec. 800.6; or

101(j) If the agency official, the SHPO/THPO and any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to the affected property agree that such property is of value solely for its scientific, prehistoric, historic or archeological data, the agency official may comply with the Archeological and Historic Preservation Act instead of the procedures in this part and provide the Council, the SHPO/THPO, and the Indian tribe or Native Hawaiian organization with a report on the actions within a reasonable time after they are completed; or

101(k) If the agency official has approved the undertaking and construction has commenced, determine actions that the agency official can take to resolve adverse effects, and notify the SHPO/THPO, any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to the affected property, and the Council within 48 hours of the discovery. The notification shall describe the agency official's assessment of National Register eligibility of the property and proposed actions to resolve the adverse effects. The SHPO/THPO, the Indian tribe or Native Hawaiian organization and the Council shall respond within 48 hours of the notification. The agency official shall take into account their recommendations regarding National Register eligibility and proposed actions, and then carry out appropriate actions. The agency official shall provide the SHPO/THPO, the Indian tribe or Native Hawaiian organization and the Council a report of the actions when they are completed.

101(c) Eligibility of properties. The agency official, in consultation with the SHPO/THPO, may assume a newly-discovered property to be eligible for the National Register for purposes of section 106. The agency official shall specify the National Register criteria used to assume the property's eligibility so that information can be used in the resolution of adverse effects.

101(d) Discoveries on tribal lands. If historic properties are discovered on tribal lands, or there are unanticipated effects on historic properties found on tribal lands, after the agency official has completed the section 106 process without establishing a process under paragraph (a) of this section and construction has commenced, the agency official shall comply with applicable tribal regulations and procedures and obtain the concurrence of the Indian tribe on the proposed action.

Subpart C—Program Alternatives

Sec. 800.14 Federal agency program alternatives.

101(h) Alternate procedures. An agency official may develop procedures to implement section 106 and substitute them for all or part of subpart B of this part if they are consistent with the Council's regulations pursuant to section 110(a)(2)(E) of the act.

101(i) Development of procedures. The agency official shall consult with the Council, the National Conference of State Historic Preservation Officers, or individual SHPO/THPOs, as appropriate, and Indian tribes and Native Hawaiian organizations, as specified in paragraph (f) of this section, in the development of alternate procedures, publish notice of the availability of proposed alternate procedures in the *Federal Register* and take other appropriate steps to seek public input during the development of alternate procedures.

101(j) Council review. The agency official shall submit the proposed alternate procedures to the Council for a 60-day review period. If the Council finds the procedures to be consistent with this part, it shall notify

the agency official and the agency official may adopt them as final alternate procedures.

(3) Notice. The agency official shall notify the parties with which it has consulted and publish notice of final alternate procedures in the *Federal Register*.

(4) Legal effect. Alternate procedures adopted pursuant to this subpart substitute for the Council's regulations for the purposes of the agency's compliance with section 106, except that where an Indian tribe has entered into an agreement with the Council to substitute tribal historic preservation regulations for the Council's regulations under section 101(d)(5) of the act, the agency shall follow those regulations in lieu of the agency's procedures regarding undertakings on tribal lands. Prior to the Council entering into such agreements, the Council will provide Federal agencies notice and opportunity to comment on the proposed substitute tribal regulations.

(b) Programmatic agreements. The Council and the agency official may negotiate a programmatic agreement to govern the implementation of a particular program or the resolution of adverse effects from certain complex project situations or multiple undertakings.

(1) Use of programmatic agreements. A programmatic agreement may be used:

(i) When effects on historic properties are similar and repetitive or are multi-State or regional in scope;

(ii) When effects on historic properties cannot be fully determined prior to approval of an undertaking;

(iii) When nonfederal parties are delegated major decisionmaking responsibilities;

(iv) Where routine management activities are undertaken at Federal installations, facilities, or other land-management units; or

(v) Where other circumstances warrant a departure from the normal section 106 process.

(2) Developing programmatic agreements for agency programs.

(a) The consultation shall involve, as appropriate, SHPO/THPOs, the National Conference of State Historic Preservation Officers (NCSHPO), Indian tribes and Native Hawaiian organizations, other Federal agencies, and members of the public. If the programmatic agreement has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the agency official shall also follow paragraph (f) of this section.

(i) Public participation. The agency official shall arrange for public participation appropriate to the subject matter and the scope of the program and in accordance with subpart A of this part. The agency official shall consider the nature of the program and its likely effects on historic properties and take steps to involve the individuals, organizations and entities likely to be interested.

(ii) Effect. The programmatic agreement shall take effect when executed by the Council, the agency official and the appropriate SHPOs/ THPOs when the programmatic agreement concerns a specific region or the president of NCSHPO when NCSHPO has participated in the consultation. A programmatic agreement shall take effect on tribal lands only when the THPO, Indian tribe, or a designated representative of the tribe is a signatory to the agreement. Compliance with the procedures established by an approved programmatic agreement satisfies the agency's section 106 responsibilities for all individual undertakings of the program covered by the agreement until it expires or is terminated by the agency, the president of NCSHPO when a signatory, or the Council. Termination by an individual SHPO/THPO shall only terminate the application of a regional programmatic agreement within the jurisdiction of the SHPO/THPO. If a THPO assumes the responsibilities of a SHPO pursuant to section 101(d)(2) of the act and the SHPO is signatory to programmatic agreement, the THPO assumes the role of a signatory, including the right to terminate a regional programmatic agreement on lands under the jurisdiction of the tribe.

(v) *Notice.* The agency official shall notify the parties with which it has consulted that a programmatic agreement has been executed under paragraph (b) of this section, provide appropriate public notice before it takes effect, and make any internal agency procedures implementing the agreement readily available to the Council, SHPO/ THPOs, and the public.

(v) If the Council determines that the terms of a programmatic agreement are not being carried out, or if such an agreement is terminated, the agency official shall comply with subpart B of this part with regard to individual undertakings of the program covered by the agreement.

(3) Developing programmatic agreements for complex or multiple undertakings. Consultation to develop a programmatic agreement for dealing with the potential adverse effects of complex projects or multiple undertakings shall follow Sec. 800.6. If consultation pertains to an activity involving multiple undertakings and the parties fail to reach agreement, then the agency official shall comply with the provisions of subpart B of this part for each individual undertaking.

(4) Prototype programmatic agreements. The Council may designate an agreement document as a prototype programmatic agreement that may be used for the same type of program or undertaking in more than one case or area. When an agency official uses such a prototype programmatic agreement, the agency official may develop and execute the agreement with the appropriate SHPO/THPO and the agreement shall become final without need for Council participation in consultation or Council signature.

(c) *Exempted categories.*

(1) *Criteria for establishing.* An agency official may propose a program or category of agency undertakings that may be exempted from review under the provisions of subpart B of this part, if the program or category meets the following criteria:

(i) The actions within the program or category would otherwise qualify as “undertakings” as defined in Sec. 800.16;

(ii) The potential effects of the undertakings within the program or category upon historic properties are foreseeable and likely to be minimal or not adverse; and

(iii) Exemption of the program or category is consistent with the purposes of the act.

(2) *Public participation.* The agency official shall arrange for public participation appropriate to the subject matter and the scope of the exemption and in accordance with the standards in subpart A of this part. The agency official shall consider the nature of the exemption and its likely effects on historic properties and take steps to involve individuals, organizations and entities likely to be interested.

(3) *Consultation with SHPOs/THPOs.* The agency official shall notify and consider the views of the SHPOs/THPOs on the exemption.

(4) Consultation with Indian tribes and Native Hawaiian organizations. If the exempted program or category of undertakings has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

(5) *Council review of proposed exemptions.* The Council shall review a request for an exemption that is supported by documentation describing the program or category for which the exemption is sought, demonstrating that the criteria of paragraph (c)(1) of this section have been met, describing the methods used to seek the views of the public, and summarizing any views submitted by the SHPO/THPOs, the public, and any others consulted. Unless it requests further information, the Council shall approve or reject the proposed exemption within 30 days of receipt, and thereafter notify the agency official and SHPO/THPOs of the decision. The decision shall be based on the consistency of the exemption with the

purposes of the act, taking into consideration the magnitude of the exempted undertaking or program and the likelihood of impairment of historic properties in accordance with section 214 of the act.

(6) Legal consequences. Any undertaking that falls within an approved exempted program or category shall require no further review pursuant to subpart B of this part, unless the agency official or the Council determines that there are circumstances under which the normally excluded undertaking should be reviewed under subpart B of this part.

(7) Termination. The Council may terminate an exemption at the request of the agency official or when the Council determines that the exemption no longer meets the criteria of paragraph (c)(1) of this section. The Council shall notify the agency official 30 days before termination becomes effective.

(8) Notice. The agency official shall publish notice of any approved exemption in the *Federal Register*.

(d) Standard treatments.

(1) Establishment. The Council, on its own initiative or at the request of another party, may establish standard methods for the treatment of a category of historic properties, a category of undertakings, or a category of effects on historic properties to assist Federal agencies in satisfying the requirements of subpart B of this part. The Council shall publish notice of standard treatments in the *Federal Register*.

(2) Public participation. The Council shall arrange for public participation appropriate to the subject matter and the scope of the standard treatment and consistent with subpart A of this part. The Council shall consider the nature of the standard treatment and its likely effects on historic properties and the individuals, organizations and entities likely to be interested. Where an agency official has proposed a standard treatment, the Council may request the agency official to arrange for public involvement.

(3) Consultation with SHPOs/THPOs. The Council shall notify and consider the views of SHPOs/THPOs on the proposed standard treatment.

(4) Consultation with Indian tribes and Native Hawaiian organizations. If the proposed standard treatment has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

(5) Termination. The Council may terminate a standard treatment by publication of a notice in the *Federal Register* 30 days before the termination takes effect.

(e) Program comments. An agency official may request the Council to comment on a category of undertakings in lieu of conducting individual reviews under Secs. 800.4 through 800.6. The Council may provide program comments at its own initiative.

(1) Agency request. The agency official shall identify the category of undertakings, specify the likely effects on historic properties, specify the steps the agency official will take to ensure that the effects are taken into account, identify the time period for which the comment is requested and summarize any views submitted by the public.

(2) Public participation. The agency official shall arrange for public participation appropriate to the subject matter and the scope of the category and in accordance with the standards in subpart A of this part. The agency official shall consider the nature of the undertakings and their likely effects on historic properties and the individuals, organizations and entities likely to be interested.

(3) Consultation with SHPOs/THPOs. The Council shall notify and consider the views of SHPOs/THPOs on the proposed program comment.

(4) Consultation with Indian tribes and Native Hawaiian organizations. If the program comment has the

potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

800.15) *Council action.* Unless the Council requests additional documentation, notifies the agency official that it will decline to comment, or obtains the consent of the agency official to extend the period for providing comment, the Council shall comment to the agency official within 45 days of the request.

800.16) If the Council comments, the agency official shall take into account the comments of the Council in carrying out the undertakings within the category and publish notice in the *Federal Register* of the Council's comments and steps the agency will take to ensure that effects to historic properties are taken into account.

800.17) If the Council declines to comment, the agency official shall continue to comply with the requirements of Secs. 800.3 through 800.6 for the individual undertakings.

800.18) *Withdrawal of comment.* If the Council determines that the consideration of historic properties is not being carried out in a manner consistent with the program comment, the Council may withdraw the comment and the agency official shall comply with the requirements of Secs. 800.3 through 800.6 for the individual undertakings.

800.19) *Consultation with Indian tribes and Native Hawaiian organizations when developing program alternatives.* Whenever an agency official proposes a program alternative pursuant to paragraphs (a) through (e) of this section, the agency official shall ensure that development of the program alternative includes appropriate government-to-government consultation with affected Indian tribes and consultation with affected Native Hawaiian organizations.

800.20) *Identifying affected Indian tribes and Native Hawaiian organizations.* If any undertaking covered by a proposed program alternative has the potential to affect historic properties on tribal lands, the agency official shall identify and consult with the Indian tribes having jurisdiction over such lands. If a proposed program alternative has the potential to affect historic properties of religious and cultural significance to an Indian tribe or a Native Hawaiian organization which are located off tribal lands, the agency official shall identify those Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to such properties and consult with them. When a proposed program alternative has nationwide applicability, the agency official shall identify an appropriate government to government consultation with Indian tribes and consult with Native Hawaiian organizations in accordance with existing Executive orders, Presidential memoranda, and applicable provisions of law.

800.21) *Results of consultation.* The agency official shall provide summaries of the views, along with copies of any written comments, provided by affected Indian tribes and Native Hawaiian organizations to the Council as part of the documentation for the proposed program alternative. The agency official and the Council shall take those views into account in reaching a final decision on the proposed program alternative.

Sec. 800.15 Tribal, State, and local program alternatives. [Reserved]

Sec. 800.16 Definitions.

800.16(a) *Act* means the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470w-6.

800.16(b) *Agency* means agency as defined in 5 U.S.C. 551.

800.16(c) *Approval of the expenditure of funds* means any final agency decision authorizing or permitting the expenditure of Federal funds or financial assistance on an undertaking, including any agency decision that

may be subject to an administrative appeal.

(d) *Area of potential effects* means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

(e) *Comment* means the findings and recommendations of the Council formally provided in writing to the head of a Federal agency under section 106.

(f) *Consultation* means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process. The Secretary's "Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act" provide further guidance on consultation.

(g) *Council* means the Advisory Council on Historic Preservation or a Council member or employee designated to act for the Council.

(h) *Day or days* means calendar days.

(i) *Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register.

(j) *Foreclosure* means an action taken by an agency official that effectively precludes the Council from providing comments which the agency official can meaningfully consider prior to the approval of the undertaking.

(k) *Head of the agency* means the chief official of the Federal agency responsible for all aspects of the agency's actions. If a State, local, or tribal government has assumed or has been delegated responsibility for section 106 compliance, the head of that unit of government shall be considered the head of the agency.

(1) *Historic property* means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

(2) The term *eligible for inclusion in the National Register* includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria.

(m) *Indian tribe* means an Indian tribe, band, nation, or other organized group or community, including a native village, regional corporation, or village corporation, as those terms are defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(n) *Local government* means a city, county, parish, township, municipality, borough, or other general purpose political subdivision of a State.

(b) *Memorandum of agreement* means the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

(p) *National Historic Landmark* means a historic property that the Secretary of the Interior has designated a National Historic Landmark.

(q) *National Register* means the National Register of Historic Places maintained by the Secretary of the

Interior.

(t) *National Register criteria* means the criteria established by the Secretary of the Interior for use in evaluating the eligibility of properties for the National Register (36 CFR part 60).

(s)(1) *Native Hawaiian organization* means any organization which serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of historic preservation that are significant to Native Hawaiians.

(r) *Native Hawaiian* means any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the State of Hawaii.

(q) *Programmatic agreement* means a document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations in accordance with Sec. 800.14(b).

(n) *Secretary* means the Secretary of the Interior acting through the Director of the National Park Service except where otherwise specified.

(v) *State Historic Preservation Officer (SHPO)* means the official appointed or designated pursuant to section 101(b)(1) of the act to administer the State historic preservation program or a representative designated to act for the State historic preservation officer.

(w) *Tribal Historic Preservation Officer (THPO)* means the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of section 106 compliance on tribal lands in accordance with section 101(d)(2) of the act.

(k) *Tribal lands* means all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities.

(y) *Undertaking* means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license or approval; and those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.

Appendix A to Part 800—Criteria for Council Involvement in Reviewing Individual Section 106 Cases

(a) *Introduction.* This appendix sets forth the criteria that will be used by the Council to determine whether to enter an individual section 106 review that it normally would not be involved in.

(b) *General policy.* The Council may choose to exercise its authorities under the section 106 regulations to participate in an individual project pursuant to the following criteria. However, the Council will not always elect to participate even though one or more of the criteria may be met.

(c) *Specific criteria.* The Council is likely to enter the section 106 process at the steps specified in the regulations in this part when an undertaking:

(i) *Has substantial impacts on important historic properties.* This may include adverse effects on properties that possess a national level of significance or on properties that are of unusual or noteworthy importance or are a rare property type; or adverse effects to large numbers of historic properties, such as impacts to multiple properties within a historic district.

(2) *Presents important questions of policy or interpretation.* This may include questions about how the Council's regulations are being applied or interpreted, including possible foreclosure or anticipatory demolition situations; situations where the outcome will set a precedent affecting Council policies or program goals; or the development of programmatic agreements that alter the way the section 106 process is applied to a group or type of undertakings.

(3) *Has the potential for presenting procedural problems.* This may include cases with substantial public controversy that is related to historic preservation issues; with disputes among or about consulting parties which the Council's involvement could help resolve; that are involved or likely to be involved in litigation on the basis of section 106; or carried out by a Federal agency, in a State or locality, or on tribal lands where the Council has previously identified problems with section 106 compliance pursuant to Sec. 800.9(d)(2).

(4) *Presents issues of concern to Indian tribes or Native Hawaiian organizations.* This may include cases where there have been concerns raised about the identification of, evaluation of or assessment of effects on historic properties to which an Indian tribe or Native Hawaiian organization attaches religious and cultural significance; where an Indian tribe or Native Hawaiian organization has requested Council involvement to assist in the resolution of adverse effects; or where there are questions relating to policy, interpretation or precedent under section 106 or its relation to other authorities, such as the Native American Graves Protection and Repatriation Act.

Dated: December 4th, 2000.

John M. Fowler,

Executive Director.

FR Doc. 00-31253 Filed 12-11-00; 8:45 am]

Posted January 2001

Return to Top

APPENDIX B: PROTECTION OF STATE
OWNED OR LEASE HISTORIC
PROPERTIES (SC CODE OF LAW
CHAPTER 12, TITLE 60)

CHAPTER 12.

PROTECTION OF STATE OWNED OR LEASED HISTORIC PROPERTIES

SECTION 60-12-10. Definitions.

As used in this chapter:

- (1) “Adverse effect” means an effect on a historic property, including alteration, destruction, or demolition, that diminishes the property’s historic integrity.
- (2) “Agency” means the state agency, department, foundation, or institution that is responsible for or has jurisdiction over the project or that has ownership or jurisdiction over the historic property.
- (3) “Department” means the Department of Archives and History.
- (4) “Historic properties” means those buildings, sites, objects, structures, and districts that are listed in the National Register of Historic Places.
- (5) “Building” means a construction that was created to shelter any form of human activity, including a house, barn, church, or hotel.
- (6) “Site” means a location of a significant event or a prehistoric or historic occupation or activity, including cemeteries, prehistoric village sites, and battlefields.
- (7) “Object” means a construction that is primarily artistic in nature or is relatively small in scale compared to a building or structure. Although it may be, by nature or design, movable, an object is associated with a specific setting or environment, such as statuary in a designed landscape, including sculpture, monuments, and fountains.
- (8) “Structure” means those functional constructions made usually for purposes other than creating shelter, including firetowers, canals, bridges, palisade fortifications, and prehistoric mounds.
- (9) “Historic district” means a significant concentration of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development and designated as such by law or regulation of the department.
- (10) “Minimize” means to lessen the adverse effect of a project on a historic property. In the case of alterations, this may include identifying and undertaking minimal change to the defining characteristics of a historic property. In the case of destruction or demolition of a historic property, this may include recording a historic building, structure, or object, or excavation of an archaeological site.
- (11) “Qualified preservation professionals” means staff with training, experience, and expertise in managing historic properties. The requirement for training can be satisfied by an undergraduate degree in architectural preservation or graduate study in architectural preservation for staff with responsibility for managing nonarchaeological properties or a graduate degree in anthropology or archaeology for staff managing archaeological sites. The requirement for training also can be satisfied by specialized historic preservation training provided by the department combined with a state certification of registration to practice architecture, or a degree in architecture, architectural history, history, or a related field. The department may certify an individual who does not possess the educational requirements specified by this item as a qualified preservation professional where such individual has developed expertise in managing historic properties through the practice of a craft or art.
- (12) “State Board of Review” means the existing advisory group that reviews nominations to the National Register of Historic Places and which includes professionals representing the fields of archaeology, architecture, architectural history, and history.
- (13) “State Properties Committee” means a committee of the State Board of Review, which will include at least three members with at least one member representing the fields of architecture, architectural history, archaeology, or related fields as appropriate.

SECTION 60-12-20. Application of chapter.

This chapter applies to any agency that owns or leases historic properties except as otherwise provided in this chapter.

SECTION 60-12-30. Consultation with department required for projects affecting historic properties.

Agencies shall consult with the department when planning projects that might adversely affect those properties listed in the National Register of Historic Places at the time of consultation. Consultation may be accomplished in one of three ways:

(1) The department shall negotiate a programmatic agreement with each agency that has qualified preservation professionals in charge of management of historic properties. The agency shall agree to avoid or, when appropriate, minimize adverse effects to historic properties under its jurisdiction. The agency shall then assume responsibility for administering its own historic preservation program. The agency's qualified preservation professionals shall participate in continuing education provided by the department at no charge.

(2) An agency that does not have qualified preservation professionals in charge of the management of historic properties may negotiate a programmatic agreement with the department for covered projects that are similar and repetitive, projects involving routine maintenance, or projects that will not significantly alter the historical integrity of a property. The agency shall then assume responsibility for carrying out the projects or types of projects included in the programmatic agreement without having to notify the department on a project-by-project basis.

(3)(a) Before an agency plans a project not covered by a programmatic agreement, the agency shall submit documentation describing the proposed project to the department. If the effect will be adverse, the agency also must describe alternatives that were considered to avoid or minimize adverse effects and the reasons why any rejected alternatives were considered not to be feasible or prudent.

(b) Within thirty days after receipt of the documentation described above, the department shall review the documentation and provide a written response to the agency. Before sending a response recommending changes, the department shall confer with the agency and attempt to negotiate a solution acceptable to both parties.

(c) If the agency and the department cannot agree on the effect of a project or measures that would avoid or minimize the adverse effect of a project on historic properties, the agency may request the recommendation of the State Properties Committee.

(d) The State Properties Committee shall review the documentation provided by the agency and the written opinion of the department. The committee shall provide its written response to the agency within thirty days after receipt of the request for comment.

(e) If the agency does not accept the recommendations made by the State Properties Committee, the agency may petition the State Board of Review to review the documentation on the project. The board shall provide its written decision to the agency within thirty days after receipt of the petition for review.

(f) Proceedings under this chapter, including the certification of individuals as qualified preservation professionals, are subject to the provisions of Chapter 23 of Title 1 (Administrative Procedures Act).

SECTION 60-12-40. Agencies to receive lists of historic properties owned or leased by them.

Before implementation of this chapter, the department shall provide each agency with a list of properties owned or leased by the agency that are listed in the National Register of Historic Places.

SECTION 60-12-50. Technical historic preservation training for agency staff.

The department shall provide technical historic preservation training sessions at no cost for agency staff involved with management of historic properties.

SECTION 60-12-60. Reports of compliance.

The department shall provide periodic reports of agencies' compliance with the intent and provisions of this chapter to the Joint Legislative Committee on Cultural Affairs.

SECTION 60-12-70. Agency agreement required prior to nomination of agency property to National Register of Historic Places.

The department shall not initiate additional nominations of state-owned or leased properties to the National Register of Historic Places from passage of this chapter until after June 30, 1995, without the written agreement of the agency that owns, leases, or has jurisdiction over the property.

SECTION 60-12-80. Exceptions from coverage of chapter.

This chapter does not apply to:

- (1) Section 106 of the National Historic Preservation Act, as amended. This includes any undertaking requiring federal funding, licensing, or approval or any undertakings on federal property.
- (2) the provisions of Article 5, Chapter 7, Title 54 (South Carolina Underwater Antiquities Act of 1991).

SECTION 60-12-90. Proposals for renovations to State House or capitol complex.

Notwithstanding any provision of law to the contrary, the State House Committee shall cause the Department of Archives and History to review and comment on any proposal for alterations or renovations to the State House or that area designated as the capitol complex. The policy and decisions of the State House Committee, with regard to any proposal for or the administration of any project or program for the maintenance, alteration or renovation of the State House or that area designated as the capitol complex, shall be final.

APPENDIX C: COASTAL ZONE
MANAGEMENT ACT OF 1976 (SC CODE
OF LAW CHAPTER 39, TITLE 48)

CHAPTER 39.

COASTAL TIDELANDS AND WETLANDS

SECTION 48-39-10. Definitions.

As used in this chapter:

- (A) "Applicant" means any person who files an application for a permit under the provisions of this chapter.
- (B) "Coastal zone" means all coastal waters and submerged lands seaward to the State's jurisdictional limits and all lands and waters in the counties of the State which contain any one or more of the critical areas. These counties are Beaufort, Berkeley, Charleston, Colleton, Dorchester, Horry, Jasper and Georgetown.
- (C) "Division" means the Coastal Division of the South Carolina Department of Health and Environmental Control.
- (D) "CDPS" means Coastal Division Permitting Staff.
- (E) "Saline waters" means those waters which contain a measurable quantity of sea water, at least one part chloride ion per thousand.
- (F) "Coastal waters" means the navigable waters of the United States subject to the ebb and flood of the tide and which are saline waters, shoreward to their mean high-water mark. Provided, however, that the department may designate boundaries which approximate the mean extent of saline waters until such time as the mean extent of saline waters can be determined scientifically.
- (G) "Tidelands" means all areas which are at or below mean high tide and coastal wetlands, mudflats, and similar areas that are contiguous or adjacent to coastal waters and are an integral part of the estuarine systems involved. Coastal wetlands include marshes, mudflats, and shallows and means those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction. Provided, however, nothing in this definition shall apply to wetland areas that are not an integral part of an estuarine system. Further, until such time as the exact geographic extent of this definition can be scientifically determined, the department shall have the authority to designate its approximate geographic extent.
- (H) "Beaches" means those lands subject to periodic inundation by tidal and wave action so that no nonlittoral vegetation is established.
- (I) "Primary ocean front sand dunes" means those dunes which constitute the front row of dunes adjacent to the Atlantic Ocean.
- (J) "Critical area" means any of the following:
- (1) coastal waters;
 - (2) tidelands;
 - (3) beaches;
 - (4) beach/dune system which is the area from the mean high-water mark to the setback line as determined in Section 48-39-280.
- (K) "Person" means any individual, organization, association, partnership, business trust, estate trust, corporation, public or municipal corporation, county, local government unit, public or private authority and shall include the State of South Carolina, its political subdivisions and all its departments, boards, bureaus or other agencies, unless specifically exempted by this chapter.
- (L) "Estuarine sanctuary" means a research area designated as an estuarine sanctuary by the Secretary of Commerce.
- (M) "Marine sanctuary" means any water and wetland areas designated as a marine sanctuary by the Secretary of Commerce.
- (N) "Minor development activities" means the construction, maintenance, repair or alteration of any private piers or erosion control structure, the construction of which does not involve dredge activities.

- (O) "Dredging" means the removal or displacement by any means of soil, sand, gravel, shells or other material, whether of intrinsic value or not, from any critical area.
- (P) "Filling" means either the displacement of saline waters by the depositing into critical areas of soil, sand, gravel, shells or other material or the artificial alteration of water levels or water currents by physical structure, drainage ditches or otherwise.
- (Q) "Submerged lands" means those river, creek and ocean bottoms lying below mean low-water mark.
- (R) "Oil" means crude petroleum oil and all other hydrocarbons, regardless of specific gravity, that are produced in liquid form by ordinary production methods, but does not include liquid hydrocarbons that were originally in a gaseous phase in the reservoir.
- (S) "Gas" means all natural gas and all other fluid hydrocarbons not hereinabove defined as oil, including condensate because it originally was in the gaseous phase in the reservoir.
- (T) "Fuel" means gas and oil.
- (U) "Emergency" means any unusual incident resulting from natural or unnatural causes which endanger the health, safety or resources of the residents of the State, including damages or erosion to any beach or shore resulting from a hurricane, storm or other such violent disturbance.
- (V) "Department" means the South Carolina Department of Health and Environmental Control.
- (W) "Board" means the board of the department.

SECTION 48-39-20. Legislative declaration of findings.

The General Assembly finds that:

- (A) The coastal zone is rich in a variety of natural, commercial, recreational and industrial resources of immediate and potential value to the present and future well-being of the State.
- (B) The increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, including requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal and harvesting of fish, shellfish and other living marine resources have resulted in the decline or loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use and shoreline erosion.
- (C) A variety of federal agencies presently operate land use controls and permit systems in the coastal zone. South Carolina can only regain control of the regulation of its critical areas by developing its own management program. The key to accomplishing this is to encourage the state and local governments to exercise their full authority over the lands and waters in the coastal zone.
- (D) The coastal zone and the fish, shellfish, other living marine resources and wildlife therein, may be ecologically fragile and consequently extremely vulnerable to destruction by man's alterations.
- (E) Important ecological, cultural, natural, geological and scenic characteristics, industrial, economic and historical values in the coastal zone are being irretrievably damaged or lost by ill-planned development that threatens to destroy these values.
- (F) In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone while balancing economic interests, present state and local institutional arrangements for planning and regulating land and water uses in such areas are inadequate.

SECTION 48-39-30. Legislative declaration of state policy.

(A) The General Assembly declares the basic state policy in the implementation of this chapter is to protect the quality of the coastal environment and to promote the economic and social improvement of the coastal zone and of all the people of the State.

(B) Specific state policies to be followed in the implementation of this chapter are:

- (1) To promote economic and social improvement of the citizens of this State and to encourage development of coastal resources in order to achieve such improvement with due consideration for the environment and within the framework of a coastal planning program that is designed to protect the

sensitive and fragile areas from inappropriate development and provide adequate environmental safeguards with respect to the construction of facilities in the critical areas of the coastal zone;

(2) To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations;

(3) To formulate a comprehensive tidelands protection program;

(4) To formulate a comprehensive beach erosion and protection policy including the protection of necessary sand dunes.

(5) To encourage and assist state agencies, counties, municipalities and regional agencies to exercise their responsibilities and powers in the coastal zone through the development and implementation of comprehensive programs to achieve wise use of coastal resources giving full consideration to ecological, cultural and historic values as well as to the needs for economic and social development and resources conservation.

(C) In the implementation of the chapter, no government agency shall adopt a rule or regulation or issue any order that is unduly restrictive so as to constitute a taking of property without the payment of just compensation in violation of the Constitution of this State or of the United States.

(D) Critical areas shall be used to provide the combination of uses which will insure the maximum benefit to the people, but not necessarily a combination of uses which will generate measurable maximum dollar benefits. As such, the use of a critical area for one or a combination of like uses to the exclusion of some or all other uses shall be consistent with the purposes of this chapter.

(E) It shall be the policy of the State to coordinate the coastal planning and management program effort with other coastal states and organizations of coastal states.

SECTION 48-39-35. Coastal Division created.

The Coastal Division of the Department of Health and Environmental Control is created July 1, 1994.

SECTION 48-39-40. Creation of Coastal Zone Management Appellate Panel; members; terms of office.

(A) On July 1, 1994, there is created the Coastal Zone Management Appellate Panel which consists of fourteen members, which shall act as an advisory council to the Department of Health and Environmental Control. The members of the panel shall be constituted as follows: eight members, one from each coastal zone county, to be elected by a majority vote of the members of the House of Representatives and a majority vote of the Senate members representing the county from three nominees submitted by the governing body of each coastal zone county, each House or Senate member to have one vote; six members, one from each of the congressional districts of the State, to be elected by a majority vote of the members of the House of Representatives and the Senate representing the counties in that district, each House or Senate member to have one vote. The panel shall elect a chairman, vice-chairman, and other officers it considers necessary.

(B) Terms of all members are for four years and until successors are appointed and qualify. Members from congressional districts serve terms of two years only as determined by lot at the first meeting of the panel. Vacancies must be filled in the original manner of selection for the remainder of the unexpired term.

(C) On July 1, 1994, members of the South Carolina Coastal Council, become members of the South Carolina Coastal Zone Appellate Panel and continue to serve until their terms expire. Upon the expiration of their terms, members must be selected as provided within this section.

SECTION 48-39-50. Powers and duties of Department.

The South Carolina Department of Health and Environmental Control shall have the following powers and duties:

- (A) To employ the CDPS consisting of, but not limited to, the following professional members: An administrator and other staff members to include those having expertise in biology, civil and hydrological engineering, planning, environmental engineering and environmental law.
- (B) To apply for, accept and expend financial assistance from public and private sources in support of activities undertaken pursuant to this chapter and the Federal Coastal zone Management Act of 1972.
- (C) To undertake the related programs necessary to develop and recommend to the Governor and the General Assembly a comprehensive program designed to promote the policies set forth in this chapter.
- (D) To hold public hearings and related community forums and afford participation in the development of management programs to all interested citizens, local governments and relevant state and federal agencies, port authorities and other interested parties.
- (E) To promulgate necessary rules and regulations to carry out the provisions of this chapter.
- (F) To administer the provisions of this chapter and all rules, regulations and orders promulgated under it.
- (G) To examine, modify, approve or deny applications for permits for activities covered by the provisions of this chapter.
- (H) To revoke and suspend permits of persons who fail or refuse to carry out or comply with the terms and conditions of the permit.
- (I) To enforce the provisions of this chapter and all rules and regulations promulgated by the department and institute or cause to be instituted in courts of competent jurisdiction of legal proceedings to compel compliance with the provisions of this chapter.
- (J) To manage estuarine and marine sanctuaries and regulate all activities therein, including the regulation of the use of the coastal waters located within the boundary of such sanctuary.
- (K) To establish, control and administer pipeline corridors and locations of pipelines used for the transportation of any fuel on or in the critical areas.
- (L) To direct and coordinate the beach and coastal shore erosion control activities among the various state and local governments.
- (M) To implement the state policies declared by this chapter.
- (N) To encourage and promote the cooperation and assistance of state agencies, coastal regional councils of government, local governments, federal agencies and other interested parties.
- (O) To exercise all incidental powers necessary to carry out the provisions of this chapter.
- (P) To coordinate the efforts of all public and private agencies and organizations engaged in the making of tidal surveys of the coastal zone of this State with the object of avoiding unnecessary duplication and overlapping.
- (Q) To serve as a coordinating state agency for any program of tidal surveying conducted by the federal government.
- (R) To develop and enforce uniform specifications and regulations for tidal surveying.
- (S) To monitor, in coordination with the South Carolina Department of Natural Resources, the waters of the State for oil spills. If such Department observes an oil spill in such waters it shall immediately report such spill to the South Carolina Department of Health and Environmental Control, the United States Coast Guard and Environmental Protection Agency. This in no way negates the responsibility of the spiller to report a spill.
- (T) To direct, as the designated state agency to provide liaison to the regional response team, pursuant to Section 1510.23 of the National Contingency Plan, state supervised removal operations of oil discharged into the waters within the territorial jurisdiction of this State and entering such waters after being discharged elsewhere within the State, and to seek reimbursement from the National Contingency Fund for removal operations cost expended by it and all other agencies and political subdivisions including county, municipal and regional governmental entities in removing such oil as provided for in Section 311(C)(2) of the Federal Water Pollution Control Act.
- (U) To act as advocate, where the department deems such action appropriate, on behalf of any person who is granted a permit for a specific development by the department but is denied a permit by a federal agency for the same specific development.
- (V) To delegate any of its powers and duties to the CDPS.

SECTION 48-39-60. Department of Natural Resources to provide additional personnel.

When requested by the department, the South Carolina Department of Natural Resources shall provide additional staff for the department, including any additional enforcement officers, necessary to administer the provisions of this chapter and for which funds are available.

SECTION 48-39-70. Cooperation of other agencies and commissions; administration of oaths; subpoenas.

(A) All other state and local agencies and commissions shall cooperate with the department in the administration of enforcement of this chapter. All agencies currently exercising regulatory authority in the coastal zone shall administer such authority in accordance with the provisions of this chapter and rules and regulations promulgated thereunder.

(B) The department, in the discharge of its duties may administer oaths and affirmations, take depositions and issue subpoenas to compel the attendance of witnesses and the production of books, papers, correspondence, memoranda and other records deemed necessary in connection with the work of the department. The only exception shall be, that information considered proprietary by the applicant. If in the opinion of the department a proper decision cannot be rendered without the submission of such proprietary information, the department shall be empowered to execute an agreement on confidentiality with the applicant and such information shall not be made a part of the public record of current or future proceedings.

(C) In case the contumacy by any person or refusal to obey a subpoena issued to any person, any circuit court of this State or circuit judge thereof within the jurisdiction of which such person guilty of contumacy or refusal to obey is found, resides or transacts business, upon application by the department, may issue to such person an order requiring him to appear before the department to produce evidence if so ordered or give testimony touching the matter under investigation. Any failure to obey an order of the court may be punished as a contempt hereof. Subpoenas shall be issued in the name of the department and signed by the department director. Subpoenas shall be issued to such persons as the department may designate.

SECTION 48-39-80. Development of coastal management program.

The department shall develop a comprehensive coastal management program, and thereafter have the responsibility for enforcing and administering the program in accordance with the provisions of this chapter and any rules and regulations promulgated under this chapter. In developing the program the department shall:

(A) Provide a regulatory system which the department shall use in providing for the orderly and beneficial use of the critical areas.

(B) In devising the management program the department shall consider all lands and waters in the coastal zone for planning purposes. In addition, the department shall:

(1) Identify present land uses and coastal resources.

(2) Evaluate these resources in terms of their quality, quantity and capability for use both now and in the future.

(3) Determine the present and potential uses and the present and potential conflicts in uses of each coastal resource.

(4) Inventory and designate areas of critical state concern within the coastal zone, such as port areas, significant natural and environmental, industrial and recreational areas.

(5) Establish broad guidelines on priority of uses in critical areas.

(6) Provide for adequate consideration of the local, regional, state and national interest involved in the siting of facilities for the development, generation, transmission and distribution of energy, adequate

transportation facilities and other public services necessary to meet requirements which are other than local in nature.

(7) Provide for consideration of whether a proposed activity of an applicant for a federal license or permit complies with the State's coastal zone program and for the issuance of notice to any concerned federal agency as to whether the State concurs with or objects to the proposed activity.

(8) Provide for a review process of the management plan and alterations thereof that involves local, regional, state and federal agencies.

(9) Conduct other studies and surveys as may be required, including the beach erosion control policy as outlined in this chapter.

(10) Devise a method by which the permitting process shall be streamlined and simplified so as to avoid duplication.

(11) Develop a system whereby the department shall have the authority to review all state and federal permit applications in the coastal zone, and to certify that these do not contravene the management plan.

(C) Provide for a review process of the management program and alterations that involve interested citizens as well as local, regional, state and federal agencies.

(D) Consider the planning and review of existing water quality standards and classifications in the coastal zone.

(E) Provide consideration for nature-related uses of critical areas, such as aquaculture, mariculture, waterfowl and wading bird management, game and nongame habitat protection projects and endangered flora and fauna.

SECTION 48-39-85. "Adopt-a-Beach" program.

(A) In order to promote safe and clean litter-free beaches, the department shall develop a program to be known as "Adopt-A-Beach", whereby an industry or a private civic organization may adopt one mile, or other feasible distance, of South Carolina beach for the sole purpose of controlling litter along that section of beach.

(B) Included in the responsibilities of any industry or private civic organization which chooses to participate in the program shall be the following:

(1) development of a functional plan to influence and encourage the public to improve the appearance of the adopted section of beach;

(2) a general cleanup of the area at least twice a year; and

(3) assistance to the department in securing media coverage for the program.

SECTION 48-39-90. Public hearings on management plan.

(A) The department, on thirty days' notice, shall hold statewide public hearings on the proposed coastal zone management plan to obtain the views of all interested parties, particularly all interested citizens, agencies, local governments, regional organizations and port authorities.

(B) All department documents associated with such hearings shall be conveniently available to the public for review and study at least thirty days prior to a hearing. A report on each hearing shall be prepared and made available to the public within forty-five days of such hearing.

(C) After sufficient hearings and upon consideration of the views of interested parties the department shall propose a final management plan for the coastal zone to the Governor and the General Assembly.

(D) Upon review and approval of the proposed management plan by the Governor and General Assembly, the proposed plan shall become the final management plan for the State's coastal zone.

(E) Any change in or amendment to the final management plan shall be implemented by following the procedures established in subsections (A), (B), (C) and (D) of this section and upon the review and approval of the Governor and the General Assembly.

SECTION 48-39-100. Plan developed in cooperation with local governments.

(A) The management program specified in Section 48-39-90 shall be developed in complete cooperation with affected local governments in the coastal zone. This cooperation shall include, but not be limited to:

- (1) Involvement of local governments or their designees in the management program.
- (2) Provision of technical assistance and grants to aid local governments in carrying out their responsibilities under this chapter.
- (3) Dissemination of improved informational data on coastal resources to local and regional governmental units.
- (4) Recommendations to local and regional governmental units as to needed modifications or alterations in local ordinances that become apparent as a result of the generation of improved and more comprehensive information.

(B) Any city or county that is currently enforcing a zoning ordinance, subdivision regulation or building code, a part of which applies to critical areas, shall submit the elements of such ordinances and regulations applying to critical areas to the department for review. The department shall evaluate such ordinances and plans to determine that they meet the provisions of this chapter and rules and regulations promulgated hereunder. Upon determination and approval by the department, such ordinances and regulations shall be adopted by the department, followed by the department in meeting its permit responsibilities under this chapter and integrated into the Department's Coastal Management Program. Any change or modification in the elements of approved zoning ordinances, subdivision regulations or building codes applying to critical areas shall be disapproved by the department if it is not in compliance with the provisions of this chapter and rules and regulations promulgated hereunder.

(C) Any city or county that is not currently enforcing ordinances or regulations on the critical areas within its jurisdiction at its option may elect to develop a management program for such critical areas by notifying the department of its intent within one hundred and eighty days following the twenty-fourth day of May, 1977. Such proposed ordinances and regulations applying to critical areas shall be subject to the process specified in Section 48-39-100(B).

(D) Any county or city may delegate some or all of its responsibilities in developing a coastal management program for critical areas under its jurisdiction to the regional council of government of which it is a part, provided the county or city has notified the department in writing at least thirty days prior to the date on which such action is to be taken.

SECTION 48-39-110. Submission of plan by State Ports Authority.

The South Carolina State Ports Authority shall prepare and submit to the department a management plan for port and harbor facilities and navigation channels. Upon approval by the department of such management plan it shall become part of the comprehensive coastal management program developed by the department. The South Carolina State Ports Authority shall include in the management plan a designation of the geographical area appropriate for use by public and private port and harbor facilities and military and naval facilities and submit this to the department for approval.

SECTION 48-39-120. Development of beach erosion control policy; issuance of permits for erosion control structures; removal of structures; limitation on development of property.

(A) The department shall develop and institute a comprehensive beach erosion control policy that identifies critical erosion areas, evaluates the benefits and costs of erosion control structures funded by the State, considers the dynamic littoral and offshore drift systems, sand dunes and like items.

(B) The department for and on behalf of the State may issue permits for erosion control structures following the provisions of this section and Sections 48-39-140 and 48-39-150, on or upon the tidelands and coastal waters of this State as it may deem most advantageous. Provided, however, that no property rebuilt or accreted as a result of natural forces or as a result of a permitted structure shall exceed the original property line or boundary. Provided, further, that no person or governmental agency may

develop ocean front property accreted by natural forces or as the result of permitted or nonpermitted structures beyond the mean high water mark as it existed at the time the ocean front property was initially developed or subdivided, and such property shall remain the property of the State held in trust for the people of the State.

(C) The department shall have the authority to remove all erosion control structures which have an adverse effect on the public interest.

(D) The department is authorized for and in behalf of the State to accept such federal monies for beach or shore erosion control in areas to which the public has full and complete access as are available and to sign all necessary agreements and to do and perform all necessary acts in connection therewith to effectuate the intent and purposes of such federal aid.

(E) If a beach or shore erosion emergency is declared by the department, the State, acting through the department, may spend whatever state funds are available to alleviate beach or shore erosion in areas to which the public has full and complete access, including any funds which may be specifically set aside for such purposes.

(F) The department, for and on behalf of the State, may issue permits not otherwise provided by state law, for erosion and water drainage structure in or upon the tidelands, submerged lands and waters of this State below the mean high-water mark as it may deem most advantageous to the State for the purpose of promoting the public health, safety and welfare, the protection of public and private property from beach and shore destruction and the continued use of tidelands, submerged lands and waters for public purposes.

SECTION 48-39-130. Permits required to utilize critical areas.

(A) Ninety days after July 1, 1977, no person shall utilize a critical area for a use other than the use the critical area was devoted to on such date unless he has first obtained a permit from the department.

(B) Within sixty days of July 1, 1977, the department shall publish and make available the interim rules and regulations it will follow in evaluating permit applications. These interim rules and regulations shall be used in evaluating and granting or denying all permit applications until such time as the final rules and regulations are adopted in accordance with this section and Chapter 23 of Title 1. Within one hundred and twenty days of July 1, 1977 the department shall publish and make available to local and regional governments and interested citizens for review and comment a draft of the final rules and regulations it will follow in evaluating permit applications. Sixty days after making such guidelines available the department shall hold a public hearing affording all interested persons an opportunity to comment on such guidelines. Following the public hearing the department, pursuant to the Administrative Procedures Act, shall in ninety days publish final rules and regulations. Provided, however, the interim rules and regulations shall not be subject to the provisions of Chapter 23 of Title 1.

(C) Ninety days after July 1, 1977 no person shall fill, remove, dredge, drain or erect any structure on or in any way alter any critical area without first obtaining a permit from the department. Provided, however, that a person who has legally commenced a use such as those evidenced by a state permit, as issued by the Budget and Control Board, or a project loan approved by the rural electrification administration or a local building permit or has received a United States Corps of Engineers or Coast Guard permit, where applicable, may continue such use without obtaining a permit. Any person may request the department to review any project or activity to determine if he is exempt under this section from the provisions of this chapter. The department shall make such determinations within forty-five days from the receipt of any such request.

(D) It shall not be necessary to apply for a permit for the following activities:

(1) The accomplishment of emergency orders of an appointed official of a county or municipality or of the State, acting to protect the public health and safety, upon notification to the department. However, with regard to the beach/dune critical area, only the use of sandbags, sandscraping, or renourishment, or a combination of them, in accordance with guidelines provided by the department is allowed pursuant to this item.

- (2) Hunting, erecting duckblinds, fishing, shellfishing and trapping when and where otherwise permitted by law; the conservation, repletion and research activities of state agencies and educational institutions or boating or other recreation provided that such activities cause no material harm to the flora, fauna, physical or aesthetic resources of the area.
- (3) The discharge of treated effluent as permitted by law; provided, however, that the department shall have the authority to review and comment on all proposed permits that would affect critical areas.
- (4) Dredge and fill performed by the United States Corps of Engineers for the maintenance of the harbor channels and the collection and disposal of the materials so dredged; provided, however, that the department shall have authority to review and certify all such proposed dredge and fill activities.
- (5) Construction of walkways over sand dunes in accordance with regulations promulgated by the department.
- (6) Emergency repairs to an existing bank, dike, fishing pier, or structure, other than oceanfront erosion control structures or devices, which has been erected in accordance with federal and state laws or provided for by general law or acts passed by the General Assembly, if notice is given in writing to the department within seventy-two hours from the onset of the needed repairs.
- (7) Maintenance and repair of drainage and sewer facilities constructed in accordance with federal or state laws and normal maintenance and repair of any utility or railroad.
- (8) Normal maintenance or repair to any pier or walkway provided that such maintenance or repair not involve dredge or fill.
- (9) Construction or maintenance of a major utility facility where the utility has obtained a certificate for such facility under 'The Utility Facility Siting and Environmental Protection Act', Chapter 33 of Title 58 of the 1976 Code. Provided, however, that the South Carolina Public Service Commission shall make the department a party to certification proceedings for utility facilities within the coastal zone.

SECTION 48-39-140. Submission of development plans; application for permits.

(A) Any person who wishes may submit development plans to the department for preliminary review. If a permit is necessary, the department will make every effort to assist the applicant in expediting the permit application.

(B) Each application for a permit shall be filed with the department and shall include:

- (1) Name and address of the applicant.
- (2) A plan or drawing showing the applicant's proposal and the manner or method by which the proposal shall be accomplished.
- (3) A plat of the area in which the proposed work will take place.
- (4) A copy of the deed, lease or other instrument under which the applicant claims title, possession or permission from the owner of the property, to carry out the proposal.
- (5) A list of all adjoining landowners and their addresses or a sworn affidavit that with due diligence such information is not ascertainable.

(C) The department within thirty days of receipt of an application for a permit shall notify, in writing, interested agencies, all adjoining landowners, local government units in which the land is located and other interested persons of the application and shall indicate the nature of the applicant's proposal. Public notice shall be given at least once by advertisement in state and local newspapers of general circulation in the area concerned. The department may hold a public hearing on applications which have any effect on a critical area if it deems a hearing necessary. The public hearing shall be held in the county where the land is located and if in more than one county the department shall determine in which county to hold the hearing or may hold hearings in both counties.

Provided, all interested agencies, all adjoining landowners, local government units and other interested persons shall have thirty days to file a written comment to such application after receipt of any such notice by the department.

SECTION 48-39-145. Application fee for permit to alter critical area; special provision as to construction of marinas and commercial dock facilities.

(A) The department may charge an administrative fee upon application for a permit for alteration of a critical area as defined in Section 48-39-10. Applications for permits which are noncommercial/nonindustrial in nature and provide personal benefits that have no connection with a commercial/industrial enterprise must pay an administrative fee of two hundred fifty dollars, unless the application is for a dock one hundred feet or less in length, in which case the fee must be one hundred and fifty dollars. Applications for amendments or modifications of permits that must be placed on public notice must be charged an administrative fee of one hundred dollars. The department may raise or lower the fee by regulation after complying with the requirements of the Administrative Procedures Act. A reasonable fee, determined by the department, must be charged for permit applications when the planned or ultimate purpose of the activity is commercial or industrial in nature.

(B) Permit applicants for construction of marina and commercial dock facilities pursuant to this section are not required to demonstrate a need for the facilities before consideration of the application.

SECTION 48-39-150. Approval or denial of permits; appeal to Council.

(A) In determining whether a permit application is approved or denied the department shall base its determination on the individual merits of each application, the policies specified in Sections 48-39-20 and 48-39-30 and be guided by the following general considerations:

(1) The extent to which the activity requires a waterfront location or is economically enhanced by its proximity to the water.

(2) The extent to which the activity would harmfully obstruct the natural flow of navigable water. If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the department prior to issuing a permit.

(3) The extent to which the applicant's completed project would affect the production of fish, shrimp, oysters, crabs or clams or any marine life or wildlife or other natural resources in a particular area including but not limited to water and oxygen supply.

(4) The extent to which the activity could cause erosion, shoaling of channels or creation of stagnant water.

(5) The extent to which the development could affect existing public access to tidal and submerged lands, navigable waters and beaches or other recreational coastal resources.

(6) The extent to which the development could affect the habitats for rare and endangered species of wildlife or irreplaceable historic and archeological sites of South Carolina's coastal zone.

(7) The extent of the economic benefits as compared with the benefits from preservation of an area in its unaltered state.

(8) The extent of any adverse environmental impact which cannot be avoided by reasonable safeguards.

(9) The extent to which all feasible safeguards are taken to avoid adverse environmental impact resulting from a project.

(10) The extent to which the proposed use could affect the value and enjoyment of adjacent owners.

(B) After considering the views of interested agencies, local governments and persons, and after evaluation of biological and economic considerations, if the department finds that the application is not contrary to the policies specified in this chapter, it shall issue to the applicant a permit. The permit may be conditioned upon the applicant's amending the proposal to take whatever measures the department feels are necessary to protect the public interest. At the request of twenty citizens or residents of the county or counties affected, the department shall hold a public hearing on any application which has an effect on a critical area, prior to issuing a permit. Such public hearings shall be open to all citizens of the

State. When applicable, joint public hearings will be held in conjunction with any such hearings required by the U. S. Army Corps of Engineers. On any permit application pertaining to a specific development which has been approved by the department, the department may support the applicant with respect to any federal permit applications pertaining to the same specific development.

(C) The department shall act upon an application for a permit within ninety days after the application is filed. Provided, however, that in the case of minor developments, as defined in Section 48-39-10, the department shall have the authority to approve such permits and shall act within thirty days. In the event a permit is denied the department shall state the reasons for such denial and such reasons must be in accordance with the provisions of this chapter.

(D) Any applicant having a permit denied or any person adversely affected by the granting of the permit has the right of direct appeal from the decision of the Administrative Law Judge to the Coastal Zone Management Appellate Panel. Any applicant having a permit denied may challenge the validity of any or all reasons given for denial.

(E) Any permit may be revoked for noncompliance with or violation of its terms after written notice of intention to do so has been given the holder and the holder given an opportunity to present an explanation to the department.

(F) Work authorized by permits issued under this chapter must be completed within five years after the date of issuance. The time limit may be extended for good cause showing that due diligence toward completion of the work has been made as evidenced by significant work progress. An extension only may be granted if the permitted project meets the policies and regulations in force when the extension is requested or the permittee agrees to accept additional conditions which would bring the project into compliance. The time periods required by this subsection must be tolled during the pendency of an administrative or a judicial appeal of the permit issuance.

SECTION 48-39-160. Violations; jurisdiction of courts.

The circuit court of the county in which the affected critical area or any part thereof lies shall have jurisdiction to restrain a violation of this chapter at the suit of the department, the Attorney General or any person adversely affected. In the event the affected critical area lies in more than one county, jurisdiction shall be in the circuit court of any county in which any part of the area lies. In the same action the circuit court having jurisdiction over the affected area may require such area to be restored to its original condition, if possible, and environmentally desirable. In the alternative, the department may complete the restoration at the expense of the person altering the area in which case suit for recovery of the amount so expended may be brought in any court having jurisdiction to restrain a violation. No bond shall be required as a condition of the granting of a temporary restraining order under this section, except that the court may in its discretion require that a reasonable bond be posted by any person requesting the court to restrain a violation of this chapter.

SECTION 48-39-170. Penalties.

(A) Any person violating any provision of this chapter is guilty of a misdemeanor and, upon conviction, must be imprisoned not more than six months or fined not more than five thousand dollars, or both, for the first offense, and imprisoned not more than one year, or fined not more than ten thousand dollars, or both, for each subsequent offense.

(B) Any violation of any provision of this chapter involving five yards square (225 square feet) or less of critical area may be treated as a minor violation, the penalty for which shall be a fine of not less than fifty dollars nor more than two hundred dollars. The enforcement officers of the Natural Resources Enforcement Division of the South Carolina Department of Natural Resources may serve warrants under this provision and otherwise enforce this chapter. The magistrates of this State have jurisdiction over minor violations of this chapter. Each day of noncompliance with any order issued relative to a minor violation or noncompliance with any permit, regulation, standard, or requirement relative to a minor

violation shall constitute a separate offense; provided, however, that violations which involve the construction or repair of water control structures shall not be considered minor violations regardless of the area involved.

(C) Any person who is determined to be in violation of any provision of this chapter by the department shall be liable for, and may be assessed by the department for, a civil penalty of not less than one hundred dollars nor more than one thousand dollars per day of violation. Whenever the department determines that any person is in violation of any permit, regulation, standard, or requirement under this chapter, the department may issue an order requiring such person to comply with such permit, regulation, standard, or requirement, including an order requiring restoration when deemed environmentally appropriate by the department; in addition, the department may bring a civil enforcement action under this section as well as seeking an appropriate injunctive relief under Section 48-39-160.

(D) All penalties assessed and collected pursuant to this section shall be deposited in the general fund of the State.

SECTION 48-39-180. Judicial review of permit determinations.

Any applicant whose permit application has been finally denied, revoked, suspended or approved subject to conditions of the department by the Coastal Zone Management Appellate Panel, or any person adversely affected by the permit, may, within twenty days after receiving notice thereof, file petition in the circuit court having jurisdiction over the affected land for a review of the department's action "de novo" or to determine whether the department's action so restricts or otherwise affects the use of the property as to deprive the owner of its existing practical use and is an unreasonable exercise of the State's police power because the action constitutes the equivalent of taking without compensation. If the court finds the action to be an unreasonable exercise of the police power it shall enter a finding that the action shall not apply to the land of the plaintiff, or in the alternative, that the department shall pay reasonable compensation for the loss of use of the land. The use allowed by any permit issued under this chapter may, in the discretion of the court, be stayed pending decision on all appeals that may be taken. The circuit court may in its discretion require that a reasonable bond be posted by any person. It is specifically intended that any person whose permit application has been denied may have such permit issued by the circuit court having jurisdiction if such person can prove the reasons given for denial to be invalid.

SECTION 48-39-190. Lands not affected by chapter.

Nothing in this chapter shall affect the status of the title of the State or any person to any land below the mean highwater mark. The State shall in no way be liable for any damages as a result of the erection of permitted works.

SECTION 48-39-200. [1977 Act No. 123 Section 20] Repealed by 1993, Act No. 181, Section 1235, eff from and after July 1, 1994.

SECTION 48-39-210. Department only state agency authorized to permit or deny alterations or utilizations within critical areas.

(A) The department is the only state agency with authority to permit or deny any alteration or utilization within the critical area except for the exemptions granted under Section 48-39-130(D) and the application for a permit must be acted upon within the time prescribed by this chapter.

(B) A critical area delineation for coastal waters or tidelands established by the department is valid only if the line is depicted on a survey performed by a professional surveyor, the line is reviewed by department, department validates the location of the boundaries of the coastal waters or tidelands critical area on the

survey by affixing a stamp and date to the survey, and the survey contains clearly on its face in bold type the following statement:

“The area shown on this plat is a general representation of Coastal Council permit authority on the subject property. Critical areas by their nature are dynamic and subject to change over time. By generally delineating the permit authority of the Coastal Council, the Coastal Council in no way waives its right to assert permit jurisdiction at any time in any critical area on the subject property, whether shown hereon or not.”

(C) Notwithstanding any other provision of this chapter, a critical area line established pursuant to subsection (B) that affects subdivided residential lots expires after three years from the department date on the survey described in subsection (B). For purposes of this section only, a critical area delineation existing on the effective date of this act is valid until December 31, 1993.

(D) Exceptions to subsection (C) are eroding coastal stream banks where it can be expected that the line will move due to the meandering of the stream before the expiration of the three- year time limit and where manmade alterations change the critical area line.

SECTION 48-39-220. Legal action to determine interest in tidelands.

(A) Any person claiming an interest in tidelands which, for the purpose of this section, means all lands except beaches in the Coastal zone between the mean high-water mark and the mean low-water mark of navigable waters without regard to the degree of salinity of such waters, may institute an action against the State of South Carolina for the purpose of determining the existence of any right, title or interest of such person in and to such tidelands as against the State. Service of process shall be made upon the secretary of the State Budget and Control Board.

(B) Any party may demand a trial by jury in any such action by serving upon the other party(s) a demand therefor in writing at any time after the commencement of the action and not later than ten (10) days after the service of the last pleading directed to such issue. Such demand may be endorsed upon a pleading of the party.

(C) Nothing contained in this chapter shall be construed to change the law of this State as it exists on July 1, 1977, relative to the right, title, or interest in and to such tidelands, except as set forth in this section.

(D) The Attorney General shall immediately notify the department upon receipt of any private suit made under this section, his response to that suit, and the final disposition of the suit. The department will publish all such notifications in the state register.

SECTION 48-39-250. Legislative findings regarding the coastal beach/dune system.

The General Assembly finds that:

(1) The beach/dune system along the coast of South Carolina is extremely important to the people of this State and serves the following functions:

(a) protects life and property by serving as a storm barrier which dissipates wave energy and contributes to shoreline stability in an economical and effective manner;

(b) provides the basis for a tourism industry that generates approximately two-thirds of South Carolina’s annual tourism industry revenue which constitutes a significant portion of the state’s economy. The tourists who come to the South Carolina coast to enjoy the ocean and dry sand beach contribute significantly to state and local tax revenues;

(c) provides habitat for numerous species of plants and animals, several of which are threatened or endangered. Waters adjacent to the beach/dune system also provide habitat for many other marine species;

(d) provides a natural healthy environment for the citizens of South Carolina to spend leisure time which serves their physical and mental well-being.

(2) Beach/dune system vegetation is unique and extremely important to the vitality and preservation of the system.

- (3) Many miles of South Carolina's beaches have been identified as critically eroding.
- (4) Chapter 39 of Title 48, Coastal Tidelands and Wetlands, prior to 1988, did not provide adequate jurisdiction to the South Carolina Coastal Council to enable it to effectively protect the integrity of the beach/dune system.
- Consequently, without adequate controls, development unwisely has been sited too close to the system. This type of development has jeopardized the stability of the beach/dune system, accelerated erosion, and endangered adjacent property. It is in both the public and private interests to protect the system from this unwise development.
- (5) The use of armoring in the form of hard erosion control devices such as seawalls, bulkheads, and rip-rap to protect erosion-threatened structures adjacent to the beach has not proven effective. These armoring devices have given a false sense of security to beachfront property owners. In reality, these hard structures, in many instances, have increased the vulnerability of beachfront property to damage from wind and waves while contributing to the deterioration and loss of the dry sand beach which is so important to the tourism industry.
- (6) Erosion is a natural process which becomes a significant problem for man only when structures are erected in close proximity to the beach/dune system. It is in both the public and private interests to afford the beach/dune system space to accrete and erode in its natural cycle. This space can be provided only by discouraging new construction in close proximity to the beach/dune system and encouraging those who have erected structures too close to the system to retreat from it.
- (7) Inlet and harbor management practices, including the construction of jetties which have not been designed to accommodate the longshore transport of sand, may deprive downdrift beach/dune systems of their natural sand supply. Dredging practices which include disposal of beach quality sand at sea also may deprive the beach/dune system of much-needed sand.
- (8) It is in the state's best interest to protect and to promote increased public access to South Carolina's beaches for out-of-state tourists and South Carolina residents alike.
- (9) Present funding for the protection, management, and enhancement of the beach/dune system is inadequate.
- (10) There is no coordinated state policy for post-storm emergency management of the beach/dune system.
- (11) A long-range comprehensive beach management plan is needed for the entire coast of South Carolina to protect and manage effectively the beach/dune system, thus preventing unwise development and minimizing man's adverse impact on the system.

SECTION 48-39-260. Policy statement.

In recognition of its stewardship responsibilities, the policy of South Carolina is to:

- (1) protect, preserve, restore, and enhance the beach/dune system, the highest and best uses of which are declared to provide:
- (a) protection of life and property by acting as a buffer from high tides, storm surge, hurricanes, and normal erosion;
 - (b) a source for the preservation of dry sand beaches which provide recreation and a major source of state and local business revenue;
 - (c) an environment which harbors natural beauty and enhances the well-being of the citizens of this State and its visitors;
 - (d) natural habitat for indigenous flora and fauna including endangered species;
- (2) create a comprehensive, long-range beach management plan and require local comprehensive beach management plans for the protection, preservation, restoration, and enhancement of the beach/dune system. These plans must promote wise use of the state's beachfront to include a gradual retreat from the system over a forty-year period;

- (3) severely restrict the use of hard erosion control devices to armor the beach/dune system and to encourage the replacement of hard erosion control devices with soft technologies as approved by the department which will provide for the protection of the shoreline without long-term adverse effects;
- (4) encourage the use of erosion-inhibiting techniques which do not adversely impact the long-term well-being of the beach/dune system;
- (5) promote carefully planned nourishment as a means of beach preservation and restoration where economically feasible;
- (6) preserve existing public access and promote the enhancement of public access to assure full enjoyment of the beach by all our citizens including the handicapped and encourage the purchase of lands adjacent to the Atlantic Ocean to enhance public access;
- (7) involve local governments in long-range comprehensive planning and management of the beach/dune system in which they have a vested interest;
- (8) establish procedures and guidelines for the emergency management of the beach/dune system following a significant storm event.

SECTION 48-39-270. Definitions.

As used in this chapter:

- (1) Erosion control structures or devices include:
 - (a) seawall: a special type of retaining wall that is designed specifically to withstand normal wave forces;
 - (b) bulkhead: a retaining wall designed to retain fill material but not to withstand wave forces on an exposed shoreline;
 - (c) revetment: a sloping structure built along an escarpment or in front of a bulkhead to protect the shoreline or bulkhead from erosion.
- (2) Habitable structure means a structure suitable for human habitation including, but not limited to, single or multifamily residences, hotels, condominium buildings, and buildings for commercial purposes. Each building of a condominium regime is considered a separate habitable structure but, if a building is divided into apartments, then the entire building, not the individual apartment, is considered a single habitable structure. Additionally, a habitable structure includes porches, gazebos, and other attached improvements.
- (3) Department means the Department of Health and Environmental Control.
- (4) Beach nourishment means the artificial establishment and periodic renourishment of a beach with sand that is compatible with the existing beach in a way so as to create a dry sand beach at all stages of the tide.
- (5) The beach/dune system includes all land from the mean highwater mark of the Atlantic Ocean landward to the setback line described in Section 48-39-280.
- (6) A standard erosion zone is a segment of shoreline which is subject to essentially the same set of coastal processes, has a fairly constant range of profiles and sediment characteristics, and is not influenced directly by tidal inlets or associated inlet shoals.
- (7) An inlet erosion zone is a segment of shoreline along or adjacent to tidal inlets which is influenced directly by the inlet and its associated shoals.
- (8) Master plan means a document or a map prepared by a developer or a city as a policy guide to decisions about the physical development of the project or community.
- (9) Planned development means a development plan which has received local approval for a specified number of dwelling and other units. The siting and size of structures and amenities are specified or restricted within the approval. This term specifically references multifamily or commercial projects not otherwise referenced by the terms, master plan, or planned unit development.
- (10) Planned unit development means a residential, commercial, or industrial development, or all three, designed as a unit and approved by local government.
- (11) Destroyed beyond repair means that more than sixty-six and two-thirds percent of the replacement value of the habitable structure or pool has been destroyed. If the owner disagrees with the appraisal of the department, he may obtain an appraisal to evaluate the damage to the building or pool. If the

appraisals differ, then the two appraisers must select a third appraiser. If the two appraisers are unable to select a third appraiser, the clerk of court of the county where the structure lies must make the selection. Nothing in this section prevents a court of competent jurisdiction from reviewing, de novo, the appraisal upon the petition of the property owner.

(12) Pool is a structure designed and used for swimming and wading.

(13) Active beach is that area seaward of the escarpment or the first line of stable natural vegetation, whichever first occurs, measured from the ocean.

SECTION 48-39-280. Forty-year retreat policy.

(A) A forty-year policy of retreat from the shoreline is established. The department must implement this policy and must utilize the best available scientific and historical data in the implementation. The department must establish a baseline which parallels the shoreline for each standard erosion zone and each inlet erosion zone.

(1) The baseline for each standard erosion zone is established at the location of the crest of the primary oceanfront sand dune in that zone. In standard erosion zones in which the shoreline has been altered naturally or artificially by the construction of erosion control devices, groins, or other manmade alterations, the baseline must be established by the department using the best scientific and historical data, as where the crest of the primary oceanfront sand dunes for that zone would be located if the shoreline had not been altered.

(2) The baseline for inlet erosion zones that are not stabilized by jetties, terminal groins, or other structures must be determined by the department as the most landward point of erosion at any time during the past forty years, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position. In collecting and utilizing the best scientific and historical data available for the implementation of the retreat policy, the department, as part of the State Comprehensive Beach Management Plan provided for in this chapter, among other factors, must consider: historical inlet migration, inlet stability, channel and ebb tidal delta changes, the effects of sediment bypassing on shorelines adjacent to the inlets, and the effects of nearby beach restoration projects on inlet sediment budgets.

(3) The baseline within inlet erosion zones that are stabilized by jetties, terminal groins, or other structures must be determined in the same manner as provided for in item (1). However, the actual location of the crest of the primary oceanfront sand dunes of that erosion zone is the baseline of that zone, not the location if the inlet had remained unstabilized.

(4) Notwithstanding any other provision of this section, where a department-approved beach nourishment project has been completed, the local government or the landowners, with notice to the local government, may petition an Administrative Law Judge to move the baseline as far seaward as the landward edge of the erosion control structure or device or, if there is no existing erosion control structure or device, then as far seaward as the post project baseline as determined by the department in accordance with Section 48-39-280(A)(1) by showing that the beach has been stabilized by department-approved beach nourishment. If the petitioner is asking that the baseline be moved seaward pursuant to this section, he must show an ongoing commitment to renourishment which will stabilize and maintain the dry sand beach at all stages of the tide for the foreseeable future. If the Administrative Law Judge grants the petition to move the baseline seaward pursuant to this section, no new construction may occur in the area between the former baseline and the new baseline for three years after the initial beach nourishment project has been completed as determined by the department. If the beach nourishment fails to stabilize the beach after a reasonable period of time, the department must move the baseline landward to the primary oceanfront sand dune as determined pursuant to items (1), (2), and (3) for that section of the beach. Any appeal of an Administrative Law Judge's decision under this section may be made to the Coastal Zone Management Appellate Panel.

(B) To implement the retreat policy provided for in subsection (A), a setback line must be established landward of the baseline a distance which is forty times the average annual erosion rate or not less than

twenty feet from the baseline for each erosion zone based upon the best historical and scientific data adopted by the department as a part of the State Comprehensive Beach Management Plan.

(C) The department, before July 3, 1991, must establish a final baseline and setback line for each erosion zone based on the best available scientific and historical data as provided in subsection (B) and with consideration of public input. The baseline and setback line must not be revised before July 1, 1998, nor later than July 1, 2000. After that revision, the baseline and setback line must be revised not less than every eight years but not more than every ten years after each preceding revision. In the establishment and revision of the baseline and setback line, the department must transmit and otherwise make readily available to the public all information upon which its decisions are based for the establishment of the final baseline and setback line. The department must hold one public hearing before establishing the final baseline and setback lines. Until the department establishes new baselines and setback lines, the existing baselines and setback lines must be used. The department may stagger the revision of the baselines and setback lines of the erosion zones so long as every zone is revised in accordance with the time guidelines established in this section.

(D) In order to locate the baseline and the setback line, the department must establish monumented and controlled survey points in each county fronting the Atlantic Ocean. The department must acquire sufficient surveyed topographical information on which to locate the baseline. Surveyed topographical data typically must be gathered at two thousand foot intervals. However, in areas subject to significant near-term development and in areas currently developed, the interval, at the discretion of the department, may be more frequent. The resulting surveys must locate the crest of the primary oceanfront sand dunes to be used as the baseline for computing the forty-year erosion rate. In cases where no primary oceanfront sand dunes exist, a study conducted by the department is required to determine where the upland location of the crest of the primary oceanfront sand dune would be located if the shoreline had not been altered. The department, by regulation, may exempt specifically described portions of the coastline from the survey requirements of this section when, in its judgment, the portions of coastline are not subject to erosion or are not likely to be developed by virtue of local, state, or federal programs in effect on the coastline which would preclude significant development, or both.

(E) A landowner claiming ownership of property affected who feels that the final or revised setback line, baseline, or erosion rate as adopted is in error, upon submittal of substantiating evidence, must be granted a review of the setback line, baseline, or erosion rate, or a review of all three. The requests must be forwarded to the Coastal Zone Management Appellate Panel and handled in accordance with the department's regulations on appeals.

SECTION 48-39-290. Restrictions on construction or reconstruction seaward of the baseline or between the baseline and the setback line; exceptions; special permits.

(A) No new construction or reconstruction is allowed seaward of the baseline except:

- (1) wooden walkways no larger in width than six feet;
- (2) small wooden decks no larger than one hundred forty-four square feet;
- (3) fishing piers which are open to the public. Those fishing piers with their associated structures including, but not limited to, baitshops, restrooms, restaurants, and arcades which existed September 21, 1989, may be rebuilt if they are constructed to the same dimensions and utilized for the same purposes and remain open to the public. In addition, those fishing piers with their associated structures which existed on September 21, 1989, that were privately owned, privately maintained, and not open to the public on this date also may be rebuilt and used for the same purposes if they are constructed to the same dimensions;
- (4) golf courses;
- (5) normal landscaping;
- (6) structures specifically permitted by special permit as provided in subsection (D);
- (7) pools may be reconstructed if they are landward of an existing, functional erosion control structure or device;

(8) existing groins may be reconstructed, repaired, and maintained. New groins may only be allowed on beaches that have high erosion rates with erosion threatening existing development or public parks. In addition to these requirements, new groins may be constructed and existing groins may be reconstructed only in furtherance of an on-going beach renourishment effort which meets the criteria set forth in regulations promulgated by the department and in accordance with the following:

(a) The applicant shall institute a monitoring program for the life of the project to measure beach profiles along the groin area and adjacent and downdrift beach areas sufficient to determine erosion/accretion rates. For the first five years of the project, the monitoring program must include, but is not necessarily limited to:

(i) establishment of new monuments;

(ii) determination of the annual volume and transport of sand; and

(iii) annual aerial photographs.

Subsequent monitoring requirements must be based on results from the first five-year report.

(b) Groins may only be permitted after thorough analysis demonstrates that the groin will not cause a detrimental effect on adjacent or downdrift areas. The applicant shall provide a financially binding commitment, such as a performance bond or letter of credit that is reasonably estimated to cover the cost of reconstructing or removing the groin and/or restoring the affected beach through renourishment pursuant to subsection (c).

(c) If the monitoring program established pursuant to subsection (a) shows an increased erosion rate along adjacent or downdrift beaches that is attributable to a groin, the department must require either that the groin be reconfigured so that the erosion rate on the affected beach does not exceed the pre-construction rate, that the groin be removed, and/or that the beach adversely affected by the groin be restored through renourishment.

(d) Adjacent and downdrift communities and municipalities must be notified by the department of all applications for a groin project.

(e) Nothing in the section shall be construed to create a private cause of action, but nothing in this section shall be construed to limit a cause of action under recognized common law or other statutory theories. The sole remedies, pursuant to this section, are:

(i) the reconstruction or removal of a groin; and/or

(ii) restoration of the adversely affected beach and adjacent real estate through renourishment pursuant to subsection (c).

An adjacent or downdrift property owner that claims a groin has caused or is causing an adverse impact shall notify the department of such impact. The department shall render an initial determination within sixty (60) days of such notification. Final agency action shall be rendered within twelve months of notification. An aggrieved party may appeal the decision pursuant to the Administrative Procedures Act.

A permit must be obtained from the department for items (2) through (8).

(B) Construction, reconstruction, or alterations between the baseline and the setback line are governed as follows:

(1) Habitable structures:

(a) New habitable structures: If part of a new habitable structure is constructed seaward of the setback line, the owner must certify in writing to the department that the construction meets the following requirements:

(i) The habitable structure is no larger than five thousand square feet of heated space. The structure must be located as far landward on the property as practicable. A drawing must be submitted to the department showing a footprint of the structure on the property, a cross section of the structure, and the structure's relation to property lines and setback lines which may be in effect. No erosion control structure or device may be incorporated as an integral part of a habitable structure constructed pursuant to this section.

(ii) No part of the building is being constructed on the primary oceanfront sand dune or seaward of the baseline.

(b) Habitable structures which existed on the effective date of Act 634 of 1988 or constructed pursuant to this section:

- (i) Normal maintenance and repair of habitable structures is allowed without notice to the department.
 - (ii) Additions to habitable structures are allowed if the additions together with the existing structure do not exceed five thousand square feet of heated space. Additions to habitable structures must comply with the conditions of new habitable structures as set forth in subitem (a).
 - (iii) Repair or renovation of habitable structures damaged, but not destroyed beyond repair, due to natural or manmade causes is allowed.
 - (iv) Replacement of habitable structures destroyed beyond repair due to natural causes is allowed after notification is provided by the owner to the department that all of the following requirements are met:
 - a. The total square footage of the replaced structure seaward of the setback line does not exceed the total square footage of the original structure seaward of the setback line. The linear footage of the replaced structure parallel to the coast does not exceed the original linear footage parallel to the coast.
 - b. The replaced structure is no farther seaward than the original structure.
 - c. Where possible, the replaced structure is moved landward of the setback line or, if not possible, then as far landward as is practicable, considering local zoning and parking regulations.
 - d. The reconstruction is not seaward of the baseline unless permitted elsewhere in Sections 48-39-250 through 48-39-360.
 - (v) Replacement of habitable structures destroyed beyond repair due to manmade causes is allowed provided the rebuilt structure is no larger than the original structure it replaces and is constructed as far landward as possible, but the new structure must not be farther seaward than the original structure.
- (2) Erosion control devices:
- (a) No new erosion control structures or devices are allowed seaward of the setback line except to protect a public highway which existed on the effective date of this act.
 - (b) Erosion control structures or devices which existed on the effective date of this act must not be repaired or replaced if destroyed:
 - (i) more than eighty percent above grade through June 30, 1995;
 - (ii) more than sixty-six and two-thirds percent above grade from July 1, 1995, through June 30, 2005;
 - (iii) more than fifty percent above grade after June 30, 2005.
 - (iv) Damage to seawalls and bulkheads must be judged on the percent of the structure remaining intact at the time of damage assessment. The portion of the structure or device above grade parallel to the shoreline must be evaluated. The length of the structure or device parallel to the shoreline still intact must be compared to the length of the structure or device parallel to the shoreline which has been destroyed. The length of the structure or device parallel to the shoreline determined to be destroyed divided by the total length of the original structure or device parallel to the shoreline yields the percent destroyed. Those portions of the structure or device standing, cracked or broken piles, whalers, and panels must be assessed on an individual basis to ascertain if these components are repairable or if replacement is required. Revetments must be judged on the extent of displacement of stone, effort required to return these stones to the prestorm event configuration of the structure or device, and ability of the revetment to retain backfill material at the time of damage assessment. If the property owner disagrees with the assessment of a registered professional engineer acting on behalf of the department, he may obtain an assessment by a registered professional engineer to evaluate, as set forth in this item, the damage to the structure or device. If the two assessments differ, then the two engineers who performed the assessments must select a registered professional engineer to perform the third assessment. If the first two engineers are unable to select an engineer to perform the third assessment, the clerk of court of the county where the structure or device lies must make the selection of a registered professional engineer. The determination of percentage of damage by the third engineer is conclusive.
 - (v) The determination of the degree of destruction must be made on a lot by lot basis by reference to county tax maps.
 - (vi) Erosion control structures or devices must not be enlarged, strengthened, or rebuilt but may be maintained in their present condition if not destroyed more than the percentage allowed in Section 48-39-290(B)(2)(b)(i), (ii), and (iii). Repairs must be made with materials similar to those of the structure or device being repaired.

(c) Erosion control structures or devices determined to be destroyed more than the percentage allowed in Section 48-39-290(B)(2)(b)(i), (ii), and (iii) must be removed at the owner's expense. Nothing in this section requires the removal of an erosion control structure or a device protecting a public highway which existed on the effective date of Act 634 of 1988.

(d) The provisions of this section do not affect or modify the provisions of Section 48-39-120(C).

(e) Subitem (a) does not apply to a private island with an Atlantic Ocean shoreline of twenty thousand, two hundred ten feet of which twenty thousand, ninety feet of shoreline is revetted with existing erosion control devices and one hundred twenty feet of shoreline is not revetted with existing erosion control devices. Nothing contained in this subitem makes this island eligible for beach renourishment funds.

(3) Pools, as defined in Section 48-39-270(12):

(a) No new pools may be constructed seaward of the setback line unless the pool is built landward of an erosion control structure or device which was in existence or permitted on the effective date of this act and is built as far landward as practical.

(b) Normal maintenance and repair is allowed without notice to the department.

(c) If a pool, existing on July 1, 1988, is destroyed beyond repair, as determined by the department pursuant to Section 48-39-270(11), it may be replaced if the owner certifies in writing to the department that:

(i) It is moved as far landward as practical. This determination of practicality must include the consideration of local zoning requirements.

(ii) It is rebuilt no larger than the destroyed pool.

(iii) It is constructed according to acceptable standards of pool construction and cannot be reinforced in a manner so as to act as an erosion control structure or device.

(d) If a pool is not destroyed beyond repair as determined by the department pursuant to Section 48-39-270(11) but the owner wishes to replace it, the owner may do so if:

(i) The dimensions of the pool are not enlarged.

(ii) The construction conforms to sub-subitem (iii) of subitem (c).

(4) All other construction or alteration between the baseline and the setback line requires a department permit. However, the department, in its discretion, may issue general permits for construction or alterations where issuance of the general permits would advance the implementation and accomplishment of the goals and purposes of Sections 48-39-250 through 48-39-360.

(C)(1) Notwithstanding the provisions relating to new construction, a person, partnership, or corporation owning real property that is affected by the setback line as established in Section 48-39-280 may proceed with construction pursuant to a valid building permit issued as of the effective date of this section. The person, partnership, or corporation may proceed with the construction of buildings and other elements of a master plan, planned development, or planned unit development notwithstanding the setback line established in this chapter if the person, partnership, or corporation legally has begun a use as evidenced by at least one of the following:

(a) All building permits have been applied for or issued by a local government before July 1, 1988.

(b) There is a master plan, planned development, or planned unit development:

(i) that has been approved in writing by a local government before July 1, 1988; or

(ii) where work has begun pursuant to approval as evidenced by the completion of the utility and infrastructure installation designed to service the real property that is subject to the setback line and included in the approved master plan, planned development, or planned unit development.

(2) However, repairs performed on a habitable structure built pursuant to this section are subject to the guidelines for repairs as set forth in this section.

(3) Nothing in this section prohibits the construction of fishing piers or structures which enhance beach access seaward of the baseline, if permitted by the department.

(D) Special permits:

(1) If an applicant requests a permit to build or rebuild a structure other than an erosion control structure or device seaward of the baseline that is not allowed otherwise pursuant to Sections 48-39-250 through 48-39-360, the department may issue a special permit to the applicant authorizing the construction or

reconstruction if the structure is not constructed or reconstructed on a primary oceanfront sand dune or on the active beach and, if the beach erodes to the extent the permitted structure becomes situated on the active beach, the permittee agrees to remove the structure from the active beach if the department orders the removal. However, the use of the property authorized under this provision, in the determination of the department, must not be detrimental to the public health, safety, or welfare.

(2) The department's Permitting Committee is the committee to consider applications for special permits.

(3) In granting a special permit, the committee may impose reasonable additional conditions and safeguards as, in its judgment, will fulfill the purposes of Sections 48-39-250 through 48-39-360.

(4) A party aggrieved by the committee's decision to grant or deny a special permit application may appeal to the full Coastal Zone Management Appellate Panel pursuant to Section 48-39-150(D).

(E) The provisions of this section and Section 48-39-280 do not apply to an area in which the erosion of the beaches located in its jurisdiction is attributed to a federally authorized navigation project as documented by the findings of a Section 111 Study conducted under the authority of the federal Rivers and Harbors Act of 1968, as amended by the federal Water Resources Development Act of 1986, and approved by the United States Army Corps of Engineers. Nothing contained in this subsection makes this area ineligible for beach renourishment funds. The baseline determined by the local governing body and the department is the line of erosion control devices and structures and the department retains its jurisdiction seaward of the baseline. In addition, upon completion of a department approved beach renourishment project, including the completion of a sand transfer system if necessary for long-term stabilization, an area under a Section 111 Study becomes subject to all the provisions of this chapter. For the purposes of this section, a beach nourishment project stabilizing the beach exists if a successful restoration project is completed consisting of at least one hundred fifty cubic yards a foot over a length of five and one-half miles, with a project design capable of withstanding a one-in-ten-year storm, as determined by department, and renourishment is conducted annually at a rate, agreed upon by the department and local governing body, equivalent to that which would occur naturally if the navigation project causing the erosion did not exist. If the two parties cannot agree, then the department must obtain the opinion of an independent third party. Any habitable structure located in an area in which the erosion of the beaches located in its jurisdiction is attributed to a federally authorized navigation project as documented by the findings of a Section 111 Study, which was in existence on September 21, 1989, and was over forty years old on that date and is designated by the local governing body as an historical landmark may be rebuilt seaward of the baseline if it is rebuilt to the exact specifications, dimensions, and exterior appearance of the structure as it existed on that date.

SECTION 48-39-300. Local governments given authority to exempt certain erosion control structures from restrictions.

A local governing body, if it notifies the department before July 1, 1990, may exempt from the provisions of Section 48-39-290, relating to reconstruction and removal of erosion control devices, the shorelines fronting the Atlantic Ocean under its jurisdiction where coastal erosion has been shown to be attributed to a federally authorized navigation project as documented by the findings of a Section 111 Study conducted under the authority of the Rivers and Harbors Act of 1968, as amended by the Water Resources Development Act of 1986 and approved by the United States Army Corps of Engineers. Erosion control devices exempt under this section must not be constructed seaward of their existing location, increased in dimension, or rebuilt out of materials different from that of the original structure.

SECTION 48-39-305. Judicial determination of ownership and whether construction prohibition applies or requires compensation; burden of proof.

(A) A person having a recorded interest or interest by operation of law in or having registered claim to land seaward of the baseline or setback line which is affected by the prohibition of construction or reconstruction may petition the circuit court to determine whether the petitioner is the owner of the land

or has an interest in it. If he is adjudged the owner of the land or to have an interest in it, the court shall determine whether the prohibition so restricts the use of the property as to deprive the owner of the practical uses of it and is an unreasonable exercise of police power and constitutes a taking without compensation. The burden of proof is on the petitioner as to ownership, and the burden of proof is on the State to prove that the prohibition is not an unreasonable exercise of police power.

(B) The method provided in this section for the determination of the issue of whether the prohibition constitutes a taking without compensation is the exclusive judicial determination of the issue, and it must not be determined in another judicial proceeding. The court shall enter a judgment in accordance with the issues. If the judgment is in favor of the petitioner, the order must require the State either to issue the necessary permits for construction or reconstruction of a structure, order that the prohibition does not apply to the property, or provide reasonable compensation for the loss of the use of the land or the payment of costs and reasonable attorney's fees, or both. Either party may appeal the court's decision.

SECTION 48-39-310. Prohibition of destruction of any beach or dune vegetation seaward of setback line.

The destruction of beach or dune vegetation seaward of the setback line is prohibited unless there is no feasible alternative. When there is destruction of vegetation permitted seaward of the setback line, mitigation, in the form of planting of new vegetation where possible, for the destruction is required as part of the permit conditions.

SECTION 48-39-320. Comprehensive beach management plan.

(A) The department's responsibilities include the creation of a longrange and comprehensive beach management plan for the Atlantic Ocean shoreline in South Carolina. The plan must include all of the following:

(1) development of the data base for the state's coastal areas to provide essential information necessary to make informed and scientifically based decisions concerning the maintenance or enhancement of the beach/dune system;

(2) development of guidelines and their coordination with appropriate agencies and local governments for the accomplishment of:

(a) beach/dune restoration and nourishment, including the projected impact on coastal erosion rates, cost/benefit of the project, impact on flora and fauna, and funding alternatives;

(b) development of a beach access program to preserve the existing public access and enhance public access to assure full enjoyment of the beach by all residents of this State;

(c) maintenance of a dry sand and ecologically stable beach;

(d) protection of all sand dunes seaward of the setback line;

(e) protection of endangered species, threatened species, and important habitats such as nesting grounds;

(f) regulation of vehicular traffic upon the beaches and the beach/dune system which includes the prohibition of vehicles upon public beaches for nonessential uses;

(g) development of a mitigation policy for construction allowed seaward of the setback line, which must include public access ways, nourishment, vegetation, and other appropriate means;

(3) formulation of recommendations for funding programs which may achieve the goals set forth in the State Comprehensive Beach Management Plan;

(4) development of a program on public education and awareness of the importance of the beach/dune system, the project to be coordinated with the South Carolina Educational Television Network and Department of Parks, Recreation and Tourism;

(5) assistance to local governments in developing the local comprehensive beach management plans.

(B) The plan provided for in this section is to be used for planning purposes only and must not be used by the department to exercise regulatory authority not otherwise granted in this chapter, unless the plan is created and adopted pursuant to Chapter 23 of Title 1.

SECTION 48-39-330. Disclosure statement.

Thirty days after the initial adoption by the department of setback lines, a contract of sale or transfer of real property located in whole or in part seaward of the setback line or the jurisdictional line must contain a disclosure statement that the property is or may be affected by the setback line, baseline, and the seaward corners of all habitable structures referenced to the South Carolina State Plane Coordinate System (N.A.D.-1983) and include the local erosion rate most recently made available by the department for that particular standard zone or inlet zone as applicable. Language reasonably calculated to call attention to the existence of baselines, setback lines, jurisdiction lines, and the seaward corners of all habitable structures and the erosion rate complies with this section.

The provisions of this section are regulatory in nature and do not affect the legality of an instrument violating the provisions.

SECTION 48-39-340. Distribution of funding.

Funding for local governments to provide for beachfront management must be distributed in a fair and equitable manner. Consideration must be given to the size of the locality, the need for beach management in the area, the cost/benefits of expenditures in that area, and the best interest of the beach/dune system of the State as established by priority by the department.

SECTION 48-39-345. Coastal Division of DHEC to administer funds reimbursed to nonfederal project sponsors under local cooperative agreement with army corps of engineers for cost-shared beach renourishment project.

Any funds reimbursed to nonfederal project sponsors under the terms of a Local Cooperative Agreement (LCA) with the Army Corps of Engineers for a federally cost-shared beach renourishment project, where the reimbursement is for credit to the nonfederal sponsor for federally approved effort and expenditures toward the nonfederal project sponsor obligations detailed in the LCA and where the State has provided funding to the nonfederal sponsor to meet the financial cost-sharing responsibilities under the LCA, must be refunded by the nonfederal sponsor to the State with the State and the nonfederal sponsor sharing in this reimbursement in the same ratio as each contributed to the total nonfederal match specified in the LCA. The Coastal Division of the South Carolina Department of Health and Environmental Control shall administer these funds and make these funds available to other beach renourishment projects.

SECTION 48-39-350. Local comprehensive beach management plan.

(A) The local governments must prepare by July 1, 1991, in coordination with the department, a local comprehensive beach management plan which must be submitted for approval to the department. The local comprehensive beach management plan, at a minimum, must contain all of the following:

- (1) an inventory of beach profile data and historic erosion rate data provided by the department for each standard erosion zone and inlet erosion zone under the local jurisdiction;
- (2) an inventory of public beach access and attendant parking along with a plan for enhancing public access and parking;
- (3) an inventory of all structures located in the area seaward of the setback line;
- (4) an inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary;
- (5) a conventional zoning and land use plan consistent with the purposes of this chapter for the area seaward of the setback line;
- (6) an analysis of beach erosion control alternatives, including renourishment for the beach under the local government's jurisdiction;

- (7) a drainage plan for the area seaward of the setback zone;
 - (8) a post disaster plan including plans for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities, all of which must be consistent with this chapter;
 - (9) a detailed strategy for achieving the goals of this chapter by the end of the forty-year retreat period. Consideration must be given to relocating buildings, removal of erosion control structures, and relocation of utilities;
 - (10) a detailed strategy for achieving the goals of preservation of existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of this State. The plan must be updated at least every five years in coordination with the department following its approval. The local governments and the department must implement the plan by July 1, 1992.
- (B) Notwithstanding the provisions of Section 48-39-340, if a local government fails to act in a timely manner to establish and enforce a local coastal beach management plan, the department must impose and implement the plan or the State Comprehensive Beach Management Plan for the local government. If a local government fails to establish and enforce a local coastal beach management plan, the government automatically loses its eligibility to receive available state-generated or shared revenues designated for beach/dune system protection, preservation, restoration, or enhancement, except as directly applied by the department in its administrative capacities.

SECTION 48-39-355. Documentation of authorized activity.

A permit is not required for an activity specifically authorized in this chapter. However, the department may require documentation before the activity begins from a person wishing to undertake an authorized construction or reconstruction activity. The documentation must provide that the construction or reconstruction is in compliance with the terms of the exemptions or exceptions provided in Sections 48-39-280 through 48-39-360.

SECTION 48-39-360. Application of chapter.

The provisions of Sections 48-39-250 through 48-39-355 do not apply to an area which is at least one-half mile inland from the mouth of an inlet.

APPENDIX D: THE SOUTH CAROLINA
MINING ACT (SC CODE OF LAW
CHAPTER 28, TITLE 48) AND THE MINING
COUNCIL OF SOUTH CAROLINA (SC
CODE OF LAW CHAPTER 89)

CHAPTER 20.

SOUTH CAROLINA MINING ACT

SECTION 48-20-10. Short title.

This chapter may be cited as the “South Carolina Mining Act”.

SECTION 48-20-20. Legislative purpose.

The purposes of this chapter are to provide that:

- (1) the usefulness, productivity, and scenic values of all lands and waters involved in mining within the State receive the greatest practical degree of protection and restoration;
- (2) no mining may be carried on in the State unless plans for the mining include reasonable provisions for protection of the surrounding environment and for reclamation of the area of land affected by mining.

SECTION 48-20-30. Department responsible for administration of chapter.

The South Carolina Department of Health and Environmental Control is responsible for administering the provisions and requirements of this chapter. This includes the process and issuance of mining permits, review and approval of reclamation plans, collection of reclamation performance bonds, conduct of environmental appraisals, technical assistance to mine operators and the public, implementation of research and demonstration projects, and inspections of all mining operations and reclamation as set forth in this chapter. Proper execution of these responsibilities may necessitate that the department seek comment from other relevant state agencies regarding matters within their respective areas of statutory responsibility or primary interests. The department has ultimate authority, subject to the appeal provisions of this chapter, over all mining, as defined in this chapter, and the provisions of this chapter regulating and controlling such activity.

SECTION 48-20-40. Definitions.

As used in this chapter:

(1) “Mining” means:

- (a) the breaking of the surface soil to facilitate or accomplish the extraction or removal of ores or mineral solids for sale or processing or consumption in the regular operation of a business;
- (b) removal of overburden lying above natural deposits of ore or mineral solids and removal of the mineral deposits exposed, or by removal of ores or mineral solids from deposits lying exposed in their natural state.

Removal of overburden and the mining of limited amounts of ores or mineral solids are not considered mining when done only for the purpose of determining location, quantity, or quality of a natural deposit if no ores or mineral solids removed during exploratory excavation or mining are sold, processed for sale, or consumed in the regular operation of a business and if the affected land does not exceed two acres in area. Mining does not include plants engaged in processing minerals except as the plants are an integral on-site part of the removal of ores or mineral solids from natural deposits. Mining does not include excavation or grading when conducted solely in aid of on-site farming or of on-site construction. Mining does not include dredging operations where the operations are engaged in the harvesting of oysters, clams, or the removal of shells from coastal bottoms.

(2) “Council” means the Mining Council created by Sections 48-21-10 and 48-21-20.

(3) “Department” means the South Carolina Department of Health and Environmental Control. Whenever in this chapter the department is assigned duties, they may be performed by the director or by subordinates as he designates.

(4) "Minerals" means soil, clay, coal, stone, gravel, sand, phosphate, rock, metallic ore, and any other solid material or substance found in natural deposits on or in the earth.

(5) "Affected land" means:

(a) the area of land from which overburden or minerals have been removed or upon which overburden has been deposited, or both, including an area on which a plant is located which is an integral part of the process of the removal of ores or mineral solids from natural deposits; or

(b) stockpiles and settling ponds located on or adjacent to lands from which overburden or minerals have been removed.

(6) "Neighboring" means in close proximity, in the immediate vicinity, or in actual contact.

(7) "Termination of mining" means cessation of mining operations or a segment of a mining operation with intent not to resume, or cessation of mining operations or a segment of a mining operation as a result of revocation of an operating permit. Whenever the department has reason to believe that a mining operation or a segment of a mining operation has terminated, it shall give the operator written notice of its intention to declare the operation or segment of the operation terminated, and he has an opportunity to appear within thirty days and present evidence that the operation or segment is continuing. Where the department finds that the evidence is satisfactory, it may not make such a declaration.

(8) "Operator" means a person engaged in mining operations, whether individually, jointly, or through subsidiaries, agents, employees, or contractors.

(9) "Overburden" means the earth, rock, and other materials that lie above the natural deposit of minerals.

(10) "Refuse" means all waste soil, rock, mineral, scrap, tailings, slimes, and other material directly connected with the mining, cleaning, and preparation of substances mined and includes all waste materials deposited on or in the permit area from other sources.

(11) "Spoil bank" means a deposit of excavated overburden or refuse.

(12) "Peak" means overburden removed from its natural position and deposited elsewhere in the shape of conical piles or projecting points.

(13) "Ridge" means overburden removed from its natural position and deposited elsewhere in the shape of a long, narrow elevation.

(14) "Reclamation" means the reasonable rehabilitation of the affected land for useful purposes and the protection of the natural resources of the surrounding area. Although both the need for and the practicability of reclamation control the type and degree of reclamation in a specific instance, the basic objective is to establish on a continuing basis the vegetative cover, soil stability, water conditions, and safety conditions appropriate to the area. Closure activities are a part of reclamation.

(15) "Reclamation plan" means the operator's written proposal as required and approved by the department for reclamation of the affected land, which includes but is not limited to:

(a) proposed practices to protect adjacent surface resources;

(b) specifications for surface gradient restoration, including sketches delineating slope angle, to a surface suitable for the proposed subsequent use of the land after reclamation is completed, and the proposed method of accomplishment;

(c) manner and type of revegetation or other surface treatment of the affected areas;

(d) method of prevention or elimination of conditions that are hazardous to animal or fish life in or adjacent to the area;

(e) method of compliance with state air and water pollution laws;

(f) proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources;

(g) proposed methods to limit significant adverse effects on significant cultural or historic sites;

(h) method of rehabilitation of settling ponds;

(i) method of control of contaminants and disposal of mining refuse;

(j) method of restoration or establishment of stream channels and stream banks to a condition minimizing erosion, siltation, and other pollution;

(k) maps and other supporting documents reasonably required by the department; and

(1) a time schedule, including the anticipated years for completion of reclamation by segments, that meets the requirements of Section 48-20-90.

(16) "Borrow pit" means an area from which soil or other unconsolidated materials are removed to be used, without further processing, for highway construction and maintenance.

(17) "Land" includes submerged lands underlying a river, stream, lake, sound, or other body of water and specifically includes, among others, estuarine and tidal lands.

(18) "Permitted land" means the affected land in addition to (a) lands identified for future mining to become affected land; (b) an undisturbed or buffer area that is or may become adjacent to the affected land.

(19) "Exploration" means the act of breaking the surface soil to determine the location, quantity, or quality of a mineral deposit. Exploration includes, but is not limited to, drilling core and bore holes, trial open pits, open cuts, trenching, and tunneling for the purpose of extracting mineral samples.

(20) "Explorer" means a person engaged in exploration activities, as defined in this section, whether individually, jointly, or through subsidiaries, agents, employees, or contractors.

(21) "Operating permit" means a permit for mining activity that is issued to an operator by the department.

(22) "Closure" means the act of rendering a mine facility or portion of a mine facility to an inoperative state that prevents the gradual or sudden release of contaminants that are harmful to the environment.

SECTION 48-20-50. Certificates of exploration.

A certificate of exploration issued by the department is required for exploration activities in an affected area of two acres or less and involving the development of open pits, trenches, open cuts, or tunneling. A certificate of exploration is not required for exploration activity on an area already covered by an operating permit or for (1) drilling core holes, (2) drilling bore holes, or (3) conducting geophysical and geochemical sampling and analysis.

An explorer engaging in exploration regulated pursuant to this section shall make a written application to the department for a certificate of exploration. The application must be on a form furnished by the department and must state fully the information requested. The applicant may be required to furnish other information as may be necessary to the department in order to enforce this chapter adequately. If the explorer does not receive notification of denial of the certificate of exploration within fifteen calendar days of the tendering of the application, the application is approved. If the certificate of exploration is denied, the department shall state the reasons, and the explorer must be given an additional thirty calendar days to either appeal the decision as set forth in Section 48-20-190 or modify its application for reconsideration by the department.

The application must be accompanied by a reclamation plan on forms furnished by the department. The department shall approve reclamation plans in accordance with Section 48-20-90.

Public notice and public hearing requirements of this chapter do not apply to an application for a certificate of exploration or the processing or granting of the certificate. The department shall treat the application for a certificate of exploration and the certificate, if any, and any material submitted with the application, as confidential trade secrets and proprietary business information of the applicant. The application and the certificate, if any, and any material submitted with the application is exempt from disclosure under the Freedom of Information Act and is not part of the public record.

Upon approval of an application for a certificate of exploration, the department shall require a performance bond or other security in an amount, and pursuant to requirements, set forth in Section 48-20-110.

An explorer engaging in exploration involving an affected area greater than two acres is required to obtain an operating permit in accordance with the procedures set forth in Sections 48-20-60 and 48-20-70.

SECTION 48-20-55. General permits for limited mining.

(A) The department may develop and implement general permits for the regulation of mining limited to excavations for topsoil or sand/clay fill material which do not require further processing. General permits developed by the department must contain, at a minimum, standard plans and specifications for environmental protection, storm water management, public health and safety protections, and reclamation of affected lands in accordance with promulgated regulations.

(B) An applicant for a general permit where the total affected area is two acres or less may begin mining when the department receives a complete application for a general permit. Before an operator may conduct mining operations under a general permit for an affected area greater than two acres, he shall file an application with the department to determine eligibility. The department may require an individual operating permit pursuant to Sections 48-20-60 and 48-20-70 instead of issuing a general permit if necessary to ensure environmental protection or public safety.

SECTION 48-20-60. Operating permits generally.

No operator may engage in mining without having first obtained from the department an operating permit which covers the affected land and which has not been terminated, revoked, suspended for the period in question, or otherwise invalidated.

An operating permit may be modified to include land neighboring the affected or permitted land in accordance with procedures set forth in Section 48-20-80. A separate operating permit is required for each mining operation that is not on land neighboring a mining operation for which the operator has a valid permit.

No operating permit may be issued except in accordance with the procedures set forth in Section 48-20-70. No operating permit may be modified except in accordance with the procedures set forth in Section 48-20-80 or 48-20-150.

An appeal from the department's decision regarding an operating permit may be taken to the council, as provided by Section 48-20-190.

No operating permit becomes effective until the operator has deposited with the department an acceptable performance bond or other security pursuant to Section 40-20-110. If at any time the bond or other security, or any part of it, lapses for a reason other than a release by the department, and the lapsed bond or security is not replaced by the operator within thirty days after notice of the lapse, the operating permit to which it pertains must be suspended until such time as the reason for the suspension is remedied and written documentation of the remedy is provided to the department.

An operating permit must be granted and remain valid unless the operating permit terminates as set forth in this chapter or until revoked by the department under the provisions of Section 48-20-160. If the mining operation terminates and the reclamation required under the approved reclamation plan is completed, the permit terminates. Termination of an operating permit does not relieve the operator of any obligations which he has incurred under his approved reclamation plan or otherwise. Where the mining operation itself has terminated, no operating permit is required in order to carry out reclamation measures under the reclamation plan.

An operating permit may be suspended or revoked for cause pursuant to Section 48-20-160.

SECTION 48-20-70. Application for, and issuance of, operating permit.

An operator desiring to engage in mining shall make written application to the department for an operating permit. The application must be on a form furnished by the department and must state fully the called for information. The applicant may be required to furnish other information as may be necessary to the department in order to enforce this chapter adequately.

The application must be accompanied by a reclamation plan which meets the requirements of Section 48-20-90. No operating permit may be issued until the plan has been approved by the department pursuant to Section 48-20-90.

The application for an operating permit must be accompanied by a signed agreement, in a form specified by the department, that if a bond forfeiture is ordered pursuant to Section 48-20-170, the department and its representatives and its contractors may make whatever entries on the permitted land and take whatever actions necessary to carry out reclamation which the operator has failed to complete.

The department shall publish notice of an application for an operating permit or a substantial modification of an operating permit in a newspaper of general circulation in the area of the proposed mining activity and, to the extent practicable, shall notify the public of the application. The department shall afford all interested parties reasonable opportunity to submit data, views, or arguments orally or in writing regarding the proposed mining activity. Opportunity for public hearing must be granted if requested by ten persons or by a governmental subdivision or agency or by an association having not less than ten members and if the request for a hearing is based on sufficient technical reasons. The request for a public hearing must be made within fifteen calendar days from the latest date of public notice of an application. The department shall consider fully all written and oral submissions respecting the mining activity before final action by the department on the application for an operating permit.

The department shall grant or deny the operating permit requested as expeditiously as possible but in no event later than sixty calendar days after the application form and any supplemental information required has been filed with the department. Priority consideration must be given to applicants who submit evidence that the mining proposed is for supplying materials for highway maintenance or highway construction.

The department shall deny an operating permit upon finding that:

- (1) a requirement of this chapter or a regulation promulgated under it is to be violated by the proposed operation;
- (2) the operation will have undue adverse effects on wildlife or freshwater, estuarine, or marine fisheries;
- (3) the operation will violate standards of air quality, surface water quality, or groundwater quality which have been promulgated by the South Carolina Department of Health and Environmental Control;
- (4) the operation will constitute a substantial physical hazard to a neighboring dwelling house, school, church, hospital, commercial or industrial building, public road, or other public property;
- (5) the operation will have a significantly adverse effect on the purposes of a publicly-owned park, publicly-owned forest, or publicly-owned recreation area;
- (6) previous experience with similar operations indicates a substantial possibility that the operation will result in substantial deposits of sediment in stream beds or lakes, landslides, or acid water pollution; or
- (7) the operator has not corrected all violations which he may have committed under an operating permit or certificate of exploration and which resulted in:
 - (a) revocation of his permit;
 - (b) forfeiture of part or all of his bond or other security;
 - (c) conviction of a misdemeanor under Section 48-20-230;
 - (d) any other court order issued under Section 48-20-230; or
 - (e) issuance of a notice of uncorrected violations.

In the absence of any such finding, an operating permit must be granted.

An operating permit issued must be conditioned expressly on compliance with all requirements of the approved reclamation plan for the operation and with further reasonable and appropriate requirements and safeguards of the department to assure that the operation complies fully with the requirements and objectives of this chapter. The conditions may include a requirement of visual screening, vegetative or otherwise, so as to screen the view of the operation from public highways, public parks, or residential areas, if the department finds the screening to be feasible and desirable. Violation of the conditions must be treated as a violation of this chapter and constitutes a basis for suspension or revocation of the operating permit.

An operator wishing modification of the terms and conditions of an operating permit or of the approved reclamation plan shall submit a request for modification in accordance with the provisions of Section 48-20-80.

If the department denies an application for an operating permit, it shall notify the operator in writing, stating the reasons for its denial and modifications in the application which would make it acceptable. The operator may modify his application or file an appeal, as provided in Section 48-20-190, but the appeal may not be accepted more than thirty days after notice of disapproval has been mailed to him at the address shown on his application.

Upon approval of an application, the department shall set the amount of the performance bond or other security which is to be required pursuant to Section 48-20-110. The operator shall have sixty days following the mailing of the notification in which to deposit the required bond or security with the department. The operating permit may not be issued until receipt of this deposit.

In addition to the applicant, all individuals and organizations requesting in writing to be notified of final action concerning an operating permit must be notified by the department. The time limits for taking appeal may not be extended because of the timing of notices sent pursuant to this paragraph.

When one operator succeeds to the interest of another in an uncompleted mining operation, by virtue of a sale, lease, assignment, or otherwise, the department may release the first operator from the duties imposed upon him by this chapter with reference to the operation and transfer the operating permit to the successor operator if both operators have complied with the requirements of this chapter and if the successor operator assumes the duties of the first operator with reference to reclamation of the land and posts a suitable bond or other security.

SECTION 48-20-80. Modifications of operating permit.

An operator engaged in mining under an operating permit may apply for modification of the permit. The application must be in writing upon forms furnished by the department and must state fully the called-for information. The applicant may be required to furnish other information as may be necessary to the department to enforce this chapter adequately. It is not necessary to resubmit information which has not changed since the time of a prior application if the applicant states in writing that the information has not changed.

A modification under this section may affect the land area covered by the operating permit, the approved reclamation plan coupled with the operating permit, or other terms and conditions of the permit. An operating permit may be modified to include land neighboring the affected or permitted land but not other lands. The reclamation plan may be modified if the department determines that the modified plan fully meets the standards set forth in Section 48-20-90 and that the modifications are generally consistent with the basis for issuance of the original operating permit. Other terms and conditions may be modified only if the department determines that the permit as modified meets the requirements of Sections 48-20-60 and 48-20-70.

In lieu of a modification, an operator may apply for a new permit in the manner prescribed by Sections 48-20-60 and 48-20-70.

No modification of a permit becomes effective until required changes have been made in the performance bond or other security posted under the provisions of Section 48-20-110 to assure the performance of obligations assumed by the operator under the permit and reclamation plan.

SECTION 48-20-90. Reclamation plans.

An explorer shall submit with his application for a certificate of exploration or an operator shall submit with his application for an operating permit a proposed reclamation plan. The reclamation plan for an operating permit only must be furnished to the local soil and water conservation district in which the mining operation is to be conducted. The plan must include as a minimum each of the elements specified in the definition of "reclamation plan" in Section 48-20-40 and other information required by the department. The reclamation plan must provide that reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with mining operations and be initiated at the earliest practicable time after completion or termination of mining on a segment of the

permitted land. The plan must provide that reclamation activities must be completed within two years after completion or termination of mining on each segment of the area for which an operating permit is requested unless a longer period specifically is permitted by the department.

The department may approve, approve subject to stated modifications, or reject the plan. The department shall approve a reclamation plan as submitted or modified, only if it finds that it adequately provides for those actions necessary to achieve the purposes and requirements of this chapter and that the plan meets the following minimum standards:

(1) The final slopes in all excavations in soil, sand, gravel, and other unconsolidated materials are to be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.

(2) Provisions for safety to persons and to adjoining property must be provided in all excavations in rock. Safety provisions may be required for excavations in unconsolidated materials that are adjacent to residential developments, schools, churches, hospitals, and commercial and industrial buildings.

(3) In open cast mining operations, all overburden and spoil must be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.

(4) In no event may a provision of this section be construed to allow small pools of water that are, or are likely to become, noxious, odious, or foul to collect or remain on the mined area. Suitable drainage ditches or conduits must be constructed or installed to avoid those conditions. Lakes, ponds, and marsh lands are to be considered adequately reclaimed lands when approved by the department.

(5) The type of vegetative cover and methods of its establishment must be specified and in every case conform to accepted and recommended agronomic and reforestation restoration practices as established by the South Carolina Agricultural Experiment Station of Clemson University and the South Carolina Forestry Commission. Advice and technical assistance may be obtained through the state soil and water conservation districts.

The department may approve a reclamation plan despite the fact that the plan does not provide for reclamation treatment of every portion of the affected land if the department finds that because of special conditions the treatment is not feasible for particular areas and that the plan takes all practical steps to minimize the extent of the areas.

An operator shall have the right to substitute an area mined in the past for an area presently being mined with the approval of the department.

SECTION 48-20-100. Authority to assess and collect fees.

The department may assess and collect fees to assist with the costs of administering the provisions of this chapter.

All appropriate fees must be received by the department before processing and approving an application as referenced in this chapter.

SECTION 48-20-110. Bonding or other security requirements.

Each applicant for a certificate of exploration, and each applicant for an operating permit, shall file with the department, upon approval of the application, and maintain in force a bond in an amount set forth in this section. All bonds must be in favor of the State of South Carolina, executed by a surety approved by the Department of Insurance in the amount set forth in this section. The bond must be continuous in nature and must remain in force until canceled by the surety. Cancellation by the surety is effectuated only upon sixty days' written notice to the department and to the operator.

The applicant may file a separate bond for each certificate of exploration or operating permit or may file a blanket bond covering all exploration activities or mining operations within the State for which he holds certificates or permits. The amount of each bond required for a certificate of exploration must be two thousand, five hundred dollars. The amount of each bond for operating permits must be based upon the area of affected land to be reclaimed under the approved reclamation plan to which it pertains, less any

area whose reclamation has been completed and released from coverage by the department pursuant to Section 48-20-130. If the area totals less than ten acres, the bond must be ten thousand dollars. If it is ten acres or more but less than fifteen acres, the bond must be fifteen thousand dollars. If it is fifteen or more acres the bond must be twenty-five thousand dollars. If an area totals more than twenty-five acres, the department may require a bond in excess of twenty-five thousand dollars if a greater bond is necessary to insure reclamation as provided by this chapter.

All mining operations must have the reclamation bond amounts in effect by July 1, 1995, or before if the mining permit is modified to increase the affected land.

The bond must be conditioned upon the faithful performance of the requirements set forth in this chapter and of the regulations adopted pursuant to it. Liability under the bond must be maintained as long as reclamation is not completed in compliance with the approved reclamation plan unless released only upon written notification from the department. Notification must be given upon completion of compliance or acceptance by the department of a substitute bond. In no event may the liability of the surety exceed the amount of surety bond required by this section.

In lieu of the surety bond required by this section, the explorer or operator may file with the department a cash deposit, registered securities acceptable to the department, an assignment of a savings account in a South Carolina bank, or other securities acceptable to the department on an assignment form prescribed by the department.

If the license to do business in South Carolina of a surety upon a bond filed pursuant to this chapter is suspended or revoked, the operator, within sixty days after receiving notice, shall substitute for the surety a good and sufficient corporate surety authorized to do business in this State or file with the department one of the alternative forms of surety prescribed in this section. Upon failure of the operator to make the substitution, the permit must be suspended until the substitute bond is posted and written documentation is provided to the department.

SECTION 48-20-120. Annual report of operator; operating fee; late penalty.

Within thirty days following the end of the state fiscal year, and each year thereafter until reclamation is completed and approved, the operator shall file a report of activities completed during the preceding year for each permitted mining operation on a form prescribed by the department which at a minimum:

- (1) identifies the mine, the operator, and the permit number;
- (2) states acreage disturbed by mining in the last twelve-month period;
- (3) states and describes the amount and type of reclamation by segments carried out in the last twelve-month period;
- (4) estimates acreage to be newly disturbed by mining in the next twelve-month period;
- (5) states and describes the amount and type of reclamation by segments, expected to be carried out in the next twelve-month period;
- (6) provides maps as specifically requested by the department.

As part of the annual report, the department may assess and collect an annual operating fee for each mine. The department may assess and collect a penalty following written notification to the operator by the department for each annual report and annual operating fee not filed within thirty days following the end of the state fiscal year. If the required operating fee and the annual report are not filed by December thirty-first following the end of the state fiscal year, the department shall give written notice to the operator and then initiate permit revocation proceedings in accordance with the provisions of Section 48-20-160.

SECTION 48-20-130. Inspections; notice of deficiencies.

Upon receipt of the operator's annual report or report of completion of reclamation and at any other reasonable time the department may elect, the department shall inspect the permit area to determine if the operator has complied with the reclamation plan, the requirements of this chapter, regulations

promulgated by its authority, and the terms and conditions of his permit. Accredited representatives of the department at all reasonable times may enter upon the land subject to the certificate of exploration or operating permit for the purpose of making the inspection.

The operator shall proceed with reclamation as scheduled in the approved reclamation plan. Following its inspection, the department shall give written notice to the operator of any deficiencies noted. The operator shall commence action within thirty days to rectify these deficiencies and proceed diligently until they have been corrected. The department may extend performance periods referred to in this section and in Section 48-20-90 for delays clearly beyond the operator's control but only in cases where the department finds that the operator is making every reasonable effort to comply. In the absence of corrective action by the operator to rectify deficiencies where previous written notice has been given, the department may issue a notice of uncorrected deficiencies or violations.

Upon completion of reclamation of an area of affected land, the operator shall notify the department. The department shall make an inspection of the area and, if it finds that reclamation has been properly completed, it shall notify the operator in writing and release him from further obligations regarding the affected land. At the same time, it shall release all of the appropriate portion of a performance bond or other security which he has posted under Section 48-20-110.

If at any time the department finds that reclamation of the permit area is not proceeding in accordance with the reclamation plan and that the operator has failed within thirty days, or any extension of that date after receiving a notice of uncorrected deficiencies to commence corrective action, or if the department finds that reclamation has not been completed properly in conformance with the reclamation plan within two years, or longer if authorized by the department, after termination of mining on any segment of the permit area, the operator shall show cause why it has not complied, and, upon just cause given, an extension of time to comply must be granted. If just cause is not demonstrated, the department shall initiate forfeiture proceedings against the bonds or other security filed by the operator under Section 48-20-170. The failure constitutes grounds for suspension or revocation of the operator's permit as provided in Section 48-20-160.

SECTION 48-20-140. Administrative fee for deficiencies.

The department may assess an administrative fee as part of the issuance of notices of uncorrected deficiencies or violations. A fee of two hundred fifty dollars may be assessed for the first notice of uncorrected deficiencies or violations with subsequent notices for the same deficiencies assessed at five hundred dollars a notice. The operator may appeal the issuance of the notice of uncorrected deficiencies and violations and administrative fees as provided in Section 48-20-190.

SECTION 48-20-150. Modification of reclamation plans.

If at any time it appears to the department that the activities under the reclamation plan and other terms and conditions of the operating permit are failing to achieve the purposes and requirements of this chapter, it shall give the operator written notice of that fact, of its intention to modify the reclamation plan and other terms and conditions of the permit in a stated manner, and of the operator's right to a hearing on the proposed modification at a stated time and place. The date for the hearing may not be less than thirty nor more than sixty days after the date of the notice unless the department and the operator mutually agree on another date. Following the hearing, the department may modify the reclamation plan and other terms and conditions of the permit in the manner stated in the notice or in such other manner it considers appropriate in view of the evidence submitted at the hearing.

SECTION 48-20-160. Notice of violations; hearings; suspension or revocation of permit.

Whenever the department believes a violation of this chapter, a regulation promulgated under it, or the terms and conditions of a permit, including the approved reclamation plan, has taken place, it shall serve

written notice of that fact upon the operator, specifying the facts constituting the apparent violation and informing the operator of his right to a hearing at a stated time and place. The date for the hearing may not be less than thirty nor more than sixty days after the date of the notice, unless the department and the operator mutually agree on another date. The operator may appear at the hearing, either personally or through counsel, and present evidence he desires in order to prove that no violation has taken place or exists. If the operator or his representative does not appear at the hearing, or if the department following the hearing finds that there has been a violation, the department may suspend the permit until the violation is corrected or may revoke the permit where the violation appears to be wilful.

The effective date of a suspension or revocation is sixty days following the date of the decision. An appeal to the council under Section 48-20-190 stays the effective date until the council's decision. A further appeal to the court of common pleas under Section 48-20-200 stays the effective date until the date of the court judgment. If the department finds at the time of its initial decision that a delay in correcting a violation may result in imminent peril to life or danger to property or to the environment, it shall initiate promptly a proceeding for injunctive relief under Section 48-20-230. The pendency of an appeal from a suspension or revocation of a permit has no effect upon the action.

An operator whose operating permit has been suspended or revoked must be denied a new permit or a reinstatement of the suspended permit to engage in mining until he gives evidence satisfactory to the department of his ability and intent to comply fully with the provisions of this chapter, regulations promulgated under it, and the terms and conditions of his permit, including the approved reclamation plan, and that he has corrected satisfactorily all deficiencies or previous violations.

A general permit, as provided for in Section 48-20-55, may be revoked or suspended if the operator is cited for violations of this chapter, a regulation promulgated under it, or the terms and conditions of that general permit. If this authority is suspended or revoked and mining is ordered to be stopped pursuant to Section 48-20-220, the operator whose eligibility to mine under a general permit that has been suspended or revoked must be denied further eligibility under that or other general permits or an individual operation permit until satisfactory evidence is presented to the department that the operation intends to comply fully with the provisions of this chapter, regulations promulgated under it, and the terms and conditions of his permit, including satisfactorily correcting all deficiencies or previous violations.

SECTION 48-20-170. Bond or security forfeiture proceedings.

Whenever the department determines the necessity of a bond forfeiture under the provisions of Section 48-20-130, or whenever it revokes an operating permit under the provisions of Section 48-20-160, it shall request the Attorney General to initiate forfeiture proceedings against the bond or other security filed by the operator or explorer under Section 48-20-110, but no such request may be made for forfeiture of a bond until the surety has been given written notice of the violation and a reasonable opportunity of at least sixty days to take corrective action. The proceedings must be brought in the name of the State of South Carolina. In the proceedings, the face amount of the bond or other security, less any amount released by the department pursuant to Section 48-20-130, must be treated as liquidated damages and subject to forfeiture. All funds collected as a result of the proceedings must be placed in a special fund and used by the department to carry out, to the extent possible, and in a cost-effective manner, the reclamation measures which the operator or explorer has failed to complete. Funds remaining after the reclamation plan has been completed must be refunded to the surety. If the amount of the bond or other security filed pursuant to this section proves to be insufficient to complete the required reclamation pursuant to the approved reclamation plan, the operator or explorer is liable to the department for any excess above the amount of the bond or other security which may be required to defray the cost of completing the required reclamation.

SECTION 48-20-180. Manner of giving written notice.

Whenever written notice must be given by the department, it must be mailed by registered or certified mail to the permanent address of the operator set forth in his most recent application for an operating permit or for a modification of a permit. No other notice is required.

SECTION 48-20-190. Appeals of decisions or determinations of department.

An applicant for a certificate of exploration or operating permit or a person who is aggrieved and is directly affected by the permit may appeal to the council from a decision or determination of the department issuing, refusing, modifying, suspending, revoking, or terminating a certificate of exploration or operating permit or reclamation plan, or imposing a term or condition on the certificate, permit, or reclamation plan. An explorer or operator may appeal to the council from a decision or determination of the department issuing a notice of deficiencies or violations and administrative fees or assessing civil penalties. The person taking the appeal within thirty days after the department's decision shall give written notice to the council through its secretary that he desires to appeal and filing a copy of the notice with the department at the same time. If more than one appeal regarding the same certificate, permit, or reclamation plan is filed with the council within the thirty-day period following the decision by the department, the council may consolidate the hearing and review of the appeals by the council. The chairman of the council shall fix a reasonable time, not less than twenty nor more than forty days from the receipt of the appeal, and place for a hearing, giving reasonable notice to the applicant, appellant, and to the department. The council, or a committee of the council designated by the council's rules of procedure, or if agreed by appellant, the council, the operator, and the department, a hearing panel consisting of one or more individuals shall conduct a full and complete hearing as to the matters in controversy, and within thirty days shall give a written decision setting forth its findings of fact and its conclusions. The council or its designated committee or the hearing panel may affirm, affirm with modifications, or overrule the decision of the department and may direct the department to take action required to effectuate its decision. A further appeal may be taken from the appellate decision to the court of common pleas as provided in Section 48-20-200.

SECTION 48-20-200. Appeals of decision of council, its committee or hearing panel; appeal of department's refusal to release bond or security.

An appeal to the courts may be taken from any decision of the council, or its designated committee or the hearing panel, in the manner provided by Chapter 7 of Title 18. An appeal also may lie against the department's refusal to release part or all of a bond or other security posed under Section 48-20-110 as provided in Section 48-20-130. The appeal may be filed in the court of common pleas for Richland County or for the county in which the mining operation is to be conducted.

SECTION 48-20-210. Department to promulgate regulations.

The department shall promulgate regulations to implement the provisions of this chapter as provided by Article 1, Chapter 23 of Title 1. The regulations must set forth the duties of operators applying for certificates of exploration and operating permits under this chapter and also those of the department director, his subordinates, or designees.

SECTION 48-20-220. Cease and desist orders; restraining orders or injunctions; civil penalties.

Whenever an explorer engages in exploration without obtaining a certificate of exploration, or whenever an operator engages in mining without obtaining a valid operating permit or conducts mining outside of the permitted land or does not comply with the approved reclamation plan and schedule following termination of mining, the department may issue an immediate cease and desist order. A cease and desist order also may be issued against an operator who is engaged in mining before his receipt of written

notification from the department that he is eligible to mine under the authority of a general permit for areas over two acres, or for not complying with the requirements of the general permit during mining. In addition to the issuance of the order, the department may seek a restraining order or injunction pursuant to Section 48-20-230.

Whenever an explorer engages in exploration without obtaining a certificate of exploration, or whenever an operator conducts mining without a valid operating permit or conducts mining outside of the permitted land or does not comply with the approved reclamation plan and schedule following termination of mining, the explorer or operator may be subject to a civil penalty assessed by the department of not more than one thousand dollars for each offense. Civil penalties may be levied against an operator who is engaged in mining before his receipt of written notification from the department that he is eligible to mine under the authority of a general permit or for not complying with the requirements of the general permit during mining. Each day of continued violation after issuance of a cease and desist order may be considered a further and separate offense. The severity of the violation, the need to deter future violations, and the magnitude of potential or actual gains resulting from the violation must be considered in determining the amount of the civil penalty. Orders and penalties issued pursuant to this section may be appealed under Section 48-20-190.

SECTION 48-20-230. Criminal penalties; authority of department to institute other actions or proceedings.

In addition to other penalties provided by this chapter, an operator who engages in mining in wilful violation of the provisions of this chapter or of regulations promulgated under it or who wilfully misrepresents a fact in an action taken pursuant to this chapter or wilfully gives false information in an application or report required by this chapter is guilty of a misdemeanor and, upon conviction, must be fined not less than one hundred dollars nor more than one thousand dollars for each offense. Each day of continued violation after written notification is a separate offense.

In addition to other remedies, the department may institute an appropriate action or proceedings to prevent, restrain, correct, or abate a violation of this chapter or a regulation promulgated under this chapter.

SECTION 48-20-240. Disposition of fees and civil penalties.

All fees and civil penalties collected under the provisions of this chapter must be deposited in the general fund through the State Treasurer.

SECTION 48-20-250. Affect of chapter on local zoning regulations or ordinances.

No provision of this chapter supersedes, affects, or prevents the enforcement of a zoning regulation or ordinance within the jurisdiction of an incorporated municipality or county or by an agency or department of this State, except when a provision of the regulation or ordinance is in direct conflict with this chapter.

SECTION 48-20-260. Chapter not to restrict or impair private right of action.

No provisions of this chapter may restrict or impair the right of a private or public person to bring a legal or equitable action for damages or redress against nuisances or hazards.

SECTION 48-20-270. Chapter not to impose liability on State for damages.

Nothing contained in this chapter and no action or failure to act under this chapter may be construed to impose liability on the State, department, district, or an agency, officer, or employee of the State for the recovery of damages caused by the action or failure to act.

SECTION 48-20-280. Application of chapter to Department of Transportation; application to mining on federal lands.

The provisions of this chapter do not apply to those activities of the Department of Transportation , nor of a person acting under contract with the department, on highway rights-of-way or borrow pits maintained solely in connection with the construction, repair, and maintenance of the public road systems of the State. This exemption does not become effective until the department has adopted reclamation standards applying to those activities and the standards have been approved by the council. At the discretion of the department, the provisions of this chapter may apply to mining on federal lands.

SECTION 48-20-290. Authority of department to accept grants, to engage in research, and cooperate with governmental entities.

The department, with the approval of the Governor, and in order to accomplish any of the purposes of the department, may apply for, accept, and expend grants from the federal government and its agencies and from a foundation, corporation, association, or individual may enter into contracts relating to the grants, and may comply with the terms, conditions, and limitations of the grants or contracts. The department may engage in appropriate research to further its ability to accomplish its purposes under this chapter and may contract for the research to be done by others. The department may cooperate with the federal, state, or a local government or agency of this or any other state in mutual programs to improve the enforcement of this chapter or to accomplish its purposes more successfully.

SECTION 48-20-300. Lands to be included in reclamation plans.

All lands mined subsequent to July 1, 1974, must be included in a reclamation plan.

SECTION 48-20-310. Exceptions to civil penalty provisions.

The civil penalties imposed upon certain violations of this chapter, including failure to act, do not include a violation which was caused by an act of God, war, strike, riot, or other catastrophe when negligence on the part of the violator was not the proximate cause.

CHAPTER 89.

OFFICE OF THE GOVERNOR--MINING COUNCIL OF SOUTH CAROLINA

Statutory Authority: 1976 Code, Section 48-20-210

89-10. Definitions.

Terms which have been defined in the Act shall have the same definitions when utilized in these Regulations. Additional definitions are as follows:

A. "Temporary overburden" means overburden which will be moved back into the mine or which will otherwise be disposed of in reclaiming the mined areas.

B. "Permanent overburden" means overburden that will be moved directly from the source to its planned final location.

C. "Best Management Practices" (erosion and sediment control) means a practice or combination of practices that are determined by the Department to be an effective and practicable means of controlling nonpoint pollutants, particularly a practice or combination of practices that are determined to be an effective and practicable means of erosion and sediment control. Acceptable practices may include, but not be limited to: check dams, diversions, filter berms, drop structures, dust suppressants, mulching, riprap, sediment basins, sediment traps, engineered stream crossings, and vegetation.

D. "Topsoil" means the surface layer and/or its underlying materials that have properties capable of producing desirable reclamation and vegetation.

89-20. Activities Requiring Permits.

No operator shall engage in mining without having first obtained from the Department an operating permit which covers the affected land provided that no permit shall be required for those activities specifically exempted by the Act. An operating permit shall be required if the affected land for an exploratory excavation involving the development of open pits, trenches, open cuts or tunneling is to exceed two acres. An operating permit will not be required to remove minerals stockpiled prior to July 1, 1974, or if the affected land for an exploratory excavation is to be less than two acres as long as no minerals from such exploratory activity are sold, processed for sale, or consumed in the regular operation of business. A Certificate of Exploration shall be required for exploratory excavations involving the development of open pits, trenches, open cuts or tunneling, and which will affect an area two acres or less. A Certificate of Exploration is not required for core drilling or sample drilling or conducting geophysical and geochemical sampling and analysis.

89-30. Exemption from Operating Permit.

An operating permit shall not be required for excavation or grading conducted solely in aid of on-site farming or on-site construction. This shall include grading, backfilling, plowing or excavating areas for agriculture, aquaculture, silviculture or on-site construction. In the event the Department is uncertain as to the specific use of material resulting from on-site farming or on-site construction, a letter of intent may be required prior to granting an exemption from an operating permit. Exemptions granted by the Department may include references to other required plans or permits including, but not limited to, local land use permits, grading permits, erosion and sediment control plans or conservation plans.

89-40. Development of Administrative Forms.

The development of all administrative forms necessary to comply with the South Carolina Mining Act and as referenced in these regulations shall be initiated by the Department. Development of all forms by the Department shall include advice and input by interested parties and shall include a 30 day period of review prior to adoption for official use. In the event the content of the forms is not satisfactory to the interested parties, the forms shall be submitted to the South Carolina Mining Council for declaratory ruling.

89-50. Application Requirements for a Certificate of Exploration.

A. Section 48-20-50 of the Act states that an explorer engaging in exploration activities regulated pursuant to the Section shall make written application to the Department on forms furnished by the Department. A completed application shall consist of:

- (1) One copy of Form MR-200 entitled "Application for a Certificate of Exploration".
- (2) One copy of Form MR-300 entitled "Reclamation Plan for Exploration".

B. The "Application for a Certificate of Exploration" and the "Reclamation Plan for Exploration" shall be completed in typewritten or hand-printed form as part of the completed application.

89-60. Application Requirements for an Operating Permit.

A. Section 48-20-70 of the Act states that any operator desiring to engage in mining shall make written application to the Department on the forms furnished by the Department. A completed application shall consist of:

- (1) One copy of the form entitled "Application for a Mining Permit".
- (2) Two copies of the form entitled "Reclamation Plan".
- (3) One copy of the form entitled "Land Entry Agreement-Owner" (MR-600) (if the mine operator owns the land) or one copy of the form entitled "Land Entry Agreement-Lessor/Lessee" (MR-700) (if the mine operator leases the land).
- (4) One copy of a letter from an attorney attesting to the ownership of the property, ownership of mineral rights and that the operator has acquired rights to mine the property.

B. Supplemental information may be required as part of the operator's application or after the Department reviews the operator's application for permit. When supplemental information is required, the Department shall state in writing to the applicant the information required and the reason or reasons for requesting such supplemental information. All supplemental information shall be submitted in typewritten or hand printed form to the Department.

89-70. Application for a Mining Permit.

Form MR-400 entitled "Application for a Mining Permit", shall be completed in typewritten or hand printed form as part of the completed application.

89-80. Reclamation Plan.

A. The basic objective of the reclamation plan shall be to establish, on a continuing basis, a vegetative cover, soil stability, and water and safety conditions appropriate to the area.

B. Reclamation shall be conducted simultaneously with mining whenever feasible and in any event shall be initiated at the earliest practicable time, but no later than within 180 days following termination of mining on any segment of the mine and shall be completed within two years after completion or termination of mining on any segment of the mine.

C. The reclamation plan, shall, to the extent applicable, include:

- (1) The planned land use or uses to which the affected lands will be rehabilitated;
- (2) The specifications for surface gradient restoration, including sketches delineating slope angle, to a surface suitable for the proposed subsequent use of the land after reclamation is completed, and the proposed method of accomplishment;
- (3) The methods to prevent or eliminate conditions that will be hazardous to animal or fish life in or adjacent to the affected land;
- (4) The methods for rehabilitating settling ponds;
- (5) The method for restoring or establishing stream channels and stream banks to a condition which will minimize erosion and siltation;
- (6) The method for the control of contaminants and disposal of the refuse including tailings;
- (7) The measures to provide safety to persons and adjoining property in all excavations;

- (8) The measures to prevent the collection and retention of small pools of water that are likely to become noxious, odious, or foul;
 - (9) A plan for the permanent revegetation, reforestation or other surface treatment of the affected land using accepted and recommended agronomic and reforestation practices of the South Carolina Agricultural Experiment Station of Clemson University and the South Carolina Commission of Forestry or the State Soil and Water Conservation Districts. The revegetation plan shall include but not be limited to the following:
 - (a) Planned soil tests;
 - (b) Site preparation and fertilization;
 - (c) Seed or plant selection;
 - (d) Rate of seeding or amount of planting per acre;
 - (e) Maintenance.
 - (10) A plan for the maintenance of any revegetated or reforested area through the second growing season or until such time as the reclaimed area shall be released from bond;
 - (11) A time schedule of reclamation activities, particularly those relating to Best Management Practices for sediment and erosion control, which shall be keyed to the maps required by these regulations;
 - (12) Two copies of a map which shall be of the same scale, quality and legibility as the map submitted with the mining permit application under these Regulations and which shall show, to the extent applicable, the following:
 - (a) The outline of the proposed final limits of the excavation, during the number of years for which the permit is requested;
 - (b) The approximate location of final cut or fill slopes not part of the general surface gradient of the area to be reclaimed;
 - (c) The outline of the tailings disposal area;
 - (d) The outline of disposal areas for spoil and refuse (exclusive of tailings ponds);
 - (e) The approximate location of the mean shore line of any impoundment or water body which will remain upon final reclamation;
 - (f) The approximate locations of access roads, haul roads, or ramps which will remain upon final reclamation;
 - (g) The approximate location of various vegetative treatments;
 - (h) The proposed locations of re-established streams or ditches to provide for drainage;
 - (i) The proposed locations of diversions, terraces, or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation;
 - (j) The proposed locations of the measures to provide safety to persons and adjoining property;
 - (k) A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map;
 - (l) The boundaries of the permitted area;
 - (m) The boundaries of the affected area for the anticipated life of the mine.
 - (n) The boundaries of the 100-year floodplain, where appropriate.
- D. The Department shall be authorized to approve a reclamation plan despite the fact that such plan does not provide for reclamation treatment of every portion of the affected land, where the Department finds that because of special conditions such treatment would not be feasible for particular areas and that the plan takes all practical steps to minimize the extent of such areas.
- E. Form MR-500, entitled "Reclamation Plan", shall be completed in typewritten or hand printed form as part of the completed application.

89-90. Land Entry Agreement.

- A. Form MR-600, entitled "Land Entry Agreement for Land Owned by Mine Operator", shall be completed in typewritten or hand printed form as part of the completed application; or

B. Form MR-700, entitled "Land Entry Agreement for Land Leased by Mine Operator", shall be completed in typewritten or hand printed form as part of the completed application. Lessor's consent will not be required for leases executed prior to July 18, 1980.

89-100. Advertising and Notice of an Applicant's Intent to Mine or Substantial Modification of a Permit.

A. The applicant for a permit shall provide the most recent county tax map(s) and names and addresses of the owners of real property, as they appear on the county tax maps, as contiguous to the proposed mine permit area. The Department shall send a notification to contiguous landowners of the application by regular mail.

B. Any notice of an applicant's intent to mine or of a substantial modification of a permit which may be required by law shall be advertised in a newspaper of general circulation in the area of the proposed mine. The advertisement will appear once a week for two consecutive weeks. The Department shall be responsible for the cost of advertising.

C. The advertisement must be at least two column inches long and state the name of the applicant, the location of the proposed mine, the county, the city, town or community nearest to the proposed mine, the primary mineral(s) to be mined, proposed land use(s) following reclamation and the last date of the public comment period.

D. Advertising will be considered complete when the Department receives affidavit(s) of publication.

89-110. Public Hearings Upon Request Following Advertisement of Intent to Mine or Substantial Modification of a Permit.

A. A public hearing will be held by the Department, following the last required date of advertisement of any application for a permit or any substantial modification, when requested in writing by ten persons or by a governmental subdivision or agency or by an association having not less than ten members. A request for a public hearing must also be based on sufficient technical reasons. The Department shall send a notice acknowledging receipt of a petition for a public hearing to the applicant and to the petitioners within fifteen (15) calendar days following receipt of the petition.

B. Public hearings held pursuant to this Section shall be for the purpose of receiving data, views, comments or arguments from all interested parties concerning any application for a permit to mine or substantial modification of an existing permit. A public hearing is not an adjudicatory hearing pursuant to the Administrative Procedures Act.

C. Requests for a public hearing are considered to have been made when received by the Department within fifteen (15) calendar days from the date of last required advertisement.

D. When a public hearing has been scheduled by the Department, public notice of the hearing shall be given at least thirty (30) calendar days prior to the date on which the public hearing will be held.

(1) The public notice shall contain all of the following information:

(a) The date of the notice;

(b) The Department's name, address, and telephone number;

(c) A statement of the date, time, and location of the public hearing;

(d) A statement that the Department will hold a public hearing to receive written and oral comments on a proposed application or modification; and

(e) A short statement describing the nature of the application or modification; and

(f) A statement indicating the final date for receipt of written comments.

(2) Public notice shall be accomplished by all of the following:

(a) Advertising the notice once a week for two consecutive weeks in a newspaper of general circulation in the area of the proposed mine;

(b) Mailing a copy of the notice to the applicant for a mining permit;

(c) Mailing a copy of the notice to the person(s) petitioning the Department; and

(d) Mailing a copy of the notice to Soil and Water Conservation District commissioners in the County where the mine is or is to be located.

E. Public hearings may be recorded and/or transcribed by the Department or by a certified Court Reporter retained for the hearing.

89-120. Terms and Conditions of Permit.

A. The terms and conditions of the permit shall be as set forth in the approved Application for a Mining Permit and the approved Reclamation Plan.

B. The Department may impose terms and conditions on the applicant's or operator's permit provided:

- (1) There is a basis in law for the provision of such terms and conditions; and
- (2) The Department shall have reviewed the mining and reclamation plans of applicant or operator; and
- (3) Inspected the lands permitted or to be permitted; and
- (4) Determined that applicant's or operator's plans are inadequate for public safety and to properly protect and safeguard the land, water, air and environment of adjacent non-permitted lands; and
- (5) The Department shall notify the applicant or operator in writing of the terms and conditions imposed and the reasons for such additional terms and conditions.

C. Such imposed terms and conditions may include and cover, but are not limited to the following:

(1) Best Management Practices for Sediment and Erosion Control:

Appropriate Best Management Practices for sediment and erosion control shall be designed, constructed, and maintained to prevent additional contribution of sediment to streams, lakes or ponds or land outside the permit area. Where applicable, sediment and erosion control measures to prevent degradation of the environment shall consist of the utilization of proper reclamation methods and sediment control practices including, but not limited to:

- (a) Grading the backfill material to reduce the rate and volume of runoff;
- (b) Retaining sediment within the pit and disturbed area;
- (c) Establishing temporary vegetation or mulch on areas that will remain subject to erosion for as long as six months.

(2) Visual Screening Measures:

The Department may require visual screening, vegetative or otherwise, so as to screen the view of the operation from public highways, public parks, or residential areas, where the Department finds such screening to be feasible and desirable.

(3) Dewatering Measures:

(a) In areas of documented groundwater-related impacts from dewatering activities or potential significant impact as determined by the Department, the Department may require the operator to install a groundwater monitoring system to evaluate pre-mining groundwater conditions.

(b) In areas of documented groundwater related problems or potential significant impact as determined by the Department, the operator may be required to keep accurate records of the time and rate of groundwater pumping, groundwater elevations in the pit or groundwater elevations in observation wells during mining.

(c) Information collected from a pre-mine groundwater monitoring system and during mining will be used by the operator and Department to determine provisions which meet the requirements for the protection and/or restoration of surface water or groundwater impacted by mine dewatering.

(4) Cultural and Historic Sites:

(a) In areas of significant cultural and historic sites, the Department may require a survey of cultural and/or historic resources on the proposed mine site by a consultant or other qualified person retained by the operator.

(b) Information obtained from the survey will be used by the operator and Department to determine provisions which meet the requirements for the protection, relocation, or excavation of significant cultural or historic sites as mining progresses.

(5) Operators Mining in Rivers and Streams:

(a) A minimum fifty-foot border of natural vegetation between the water's edge and any plant site on the permitted area shall be left undisturbed subject to the operator's right to normal access to the stream.

When the materials extracted are not processed after removal and no plant is located on the property, the operator shall take all necessary precautions to preserve the integrity of the stream bank.

(b) The S. C. Department of Highways and Public Transportation and/or the S. C. Public Service Commission may be contacted in reference to setback requirements from bridges, railroad trestles and other structures for in-stream mining activity.

(c) Where appropriate, Best Management Practices, such as sediment traps and sediment fences shall be installed and maintained to minimize the amount of sediment and spoil returning to the stream.

(d) Where appropriate, the Department may require that all facilities such as dredges, pumps and floating pipelines which are placed in any stream or other body of water navigable by boats and water recreational vehicles be identified by flags, signs and lights.

(e) Sediments, spoil or screening shall not be placed so as to build up the water surface or near enough to the water surface to interfere with normal flow of the stream or traffic by boat or recreational vehicles.

(6) Noise Monitoring and Control.

(a) On initial applications or permits having substantial modifications where the Department determines that a mining operation may significantly increase noise levels on neighboring property, the operator may be required to conduct monitoring to determine background noise levels.

(b) Information collected from the noise monitoring will be used by the operator and Department to determine provisions to minimize noise levels to neighboring landowners.

D. The applicant may voluntarily agree to place terms and conditions on the permit. Such voluntary terms and conditions become binding and fully enforceable. Such voluntary terms and conditions do not (1) become binding on any other permit, (2) establish any precedent, (3) establish any standard procedure or standard practices or (4) have any application outside the permit.

89-130. Operating Permit Survey Control Points.

A. The operator shall be required to clearly mark the boundary of the permitted area prior to initiating mining. Boundary markers shall be maintained throughout the life of the mine. The operator shall also install and maintain two (2) permanent survey monuments or control points within the permitted area at least 100 feet apart.

B. As determined to be necessary, the Department may require the operator to place control markers at the boundary of the area to be affected under the operating permit.

89-140. Minimum Standards for Environmental Protection and Land Reclamation.

A. In all excavation of rock, provisions for safety to persons and to adjoining property must be provided including, but not limited to the following requirements:

(1) Fencing may be required at any excavation in rock which exceeds twenty feet in depth. Fencing along "natural barriers" such as swamps, rivers, and salt marsh may not be required. Fencing along sides of quarries on natural slopes or where no highwall is present may be required to discourage access to the base of highwalls present in other parts of the quarry. Cultural or other barriers including, but not limited to, rock barricades, elevated roadways, railroads and building facades may be accepted by the Department.

(2) The type of fence required by the Department depends primarily on the location of the excavation. The types of fences which may be required by the Department are woven wire, barbed wire, chain link, or combination of the three. Woven and barbed wire fences are generally suitable for rural areas with no adjacent development. Chain link fences are suitable generally for urbanized or heavily developed areas. If the area adjacent to an excavation becomes urbanized after a fence suitable for a more remote location has been installed and accepted, upgrading of the fence may be required.

(3) Woven wire fence fabric shall be at least thirty-nine inches in width. Woven wire fences shall be topped with two strands of two-point, twelve and one-half gauge or heavier barbed wire having barbs not over five inches apart. Thirty-nine inch woven wire shall have nine lines with six inch spacing on stay wires. Barbed wire fences shall have at least five equally spaced strands of four-point barbed wire, twelve and one-half gauge or heavier with barbs not more than five inches apart. The top strand must be

forty-five inches above the ground. Chain link fence fabric shall be not less than sixty inches in width. Forty-eight inch chain link fences may be substituted for woven wire or barbed wire fences. Chain link fences must be eleven and one-half gauge and have a tension wire or rails at the top and bottom. Higher chain link fences or chain link fences topped with three or four strands of four-point, twelve and one-half gauge or heavier barbed wire, with barbs not over five inches apart, may be required in certain cases. The bottom strand of the fence shall not come in contact with the ground and there must be no excessive openings between the ground and the bottom of the fence. Opening under fences, caused by crossing ditches or small ground depressions where it is not practical for the fencing to follow closely the contour of the ground, must be fenced or otherwise closed.

B. All overburden and spoil shall be placed so as not to result in deposits of sediment in streams, lakes, or on adjacent property. Also, it shall not be placed in such a way as to interfere with proper drainage. If the Department finds environmental degradation or degradation of the scenic values in the non-permitted area resulting from sedimentation or water pollution, then the Department may require corrective measures including, but not limited to:

(1) Runoff from the temporary overburden piles will be diverted into the mining operation, pits, sediment basins or otherwise prevented from leaving the site until adequate settlement or filtration has been accomplished.

(2) Temporary overburden piles shall not be placed in or infringe on natural drainageways or floodways, unless proper designs are utilized.

(3) Temporary overburden piles in public view shall be vegetated as rapidly as the placement operations permit.

(4) Each segment of permanent overburden shall be shaped and vegetated (where appropriate) as rapidly as placement progresses.

(5) The shape of the permanent overburden material will blend in with the natural landscape and in accordance with the Reclamation Plan.

(6) Temporary or permanent Best Management Practices for erosion control shall be used as needed to prevent sediment from leaving the site.

(7) Permanent overburden piles shall be placed in a manner consistent with land use and in a manner which will not interfere with natural drainage, drainageways, or floodways.

C. Topsoil, sufficient to satisfy reclamation requirements, shall be removed and stored in such a manner as to remain available for reclamation and shall not be carried away or covered up with other materials. Topsoil which has been saved for future reclamation shall not be removed from the affected area unless authorized by the Department.

D. During the mining operation and reclamation work, care must be taken to prevent any excessive drainage or accumulation or release of excess water that may damage the adjoining property of other owners.

89-150. Surface Blasting Requirements.

A. Pre-Blast Survey

(1) Prior to initial blasting activities or significant modification of a permit which expects to use blasting, the operator shall be responsible for a pre-blast survey of inhabited structures (commercial buildings, homes, churches, barns) that are within one-half mile of any blasting to be conducted by the operator. The survey may exclude structures that the operator owns or has a waiver of damage.

(2) The operator shall submit to the Department the names and addresses of the owners of inhabited structures within the one-half mile. The Department will notify, in writing, the appropriate structure owner informing them of their right to have their structures inspected at no cost to the structure owner. Based on the response from the owner, the Department will notify the operator as to which structures are to be inspected.

(3) The survey shall be conducted by a consultant or other qualified person retained by the operator and approved by the Department. The consultant or other qualified person shall inspect each designated structure to determine the base line condition of that structure before blasting is initiated.

(4) The owner shall have the right to be present during the survey of his structure. A written report of the inspection shall be submitted to the Department, owner of the structure and to the operator.

B. The operator shall keep accurate records of the use of explosives including, but not limited to, spacing, depth, and pattern of holes, pounds of explosive per delay, total pounds of explosive used per event, and the date and time of the blasts. These records shall be retained for at least three years.

C. When the Department finds it necessary to monitor a blast in an investigation of a written complaint, the operator upon written request from the Department shall give the Department forty-eight hours notice before blasting, such request to become effective forty-eight hours after receipt of the written request.

D. Access into the blasting area shall be controlled by the operator to protect the public and livestock from physical effects of flyrock.

E. In all blasting operations the maximum peak particle velocity measured in any three mutually perpendicular directions shall not exceed one inch per second at the immediate location of any dwelling, public building, school, church, or commercial or institutional building. The maximum peak particle velocity requirement does not apply to structures within the permitted area, or any area that is owned or leased by the operator. Leased as used above shall include structures on which the operator has acquired waiver to damage rights.

F. An equation for determining the maximum weight of explosives that can be detonated within any 8-millisecond period is contained in the following paragraph. If the blasting is conducted in accordance with this equation, the maximum peak particle velocity shall be deemed to be within the 1-inch per second limit.

G. The maximum weight of explosives to be detonated within any 8-millisecond period may be determined by the formula $W = (D/60)^2$ where W = the maximum weight of the explosive, in pounds, and D = the distance, in feet, from the blast to the nearest dwelling, school, church, or commercial or institutional building.

H. On applications for new areas dated subsequent to the date of these regulations, the operator shall maintain a minimum distance of two hundred fifty (250) feet from contiguous property boundaries when conducting blasting.

I. To provide for adequate public safety, the operator shall be required to maintain a minimum distance between the nearest point of blasting and any structures not owned by the operator as of the completed application date or where there is no waiver of damage. The minimum distance shall be established by the Department after considering the method of mining, site conditions, proposed directions of blasting, type and use of neighboring structures, previous blasting record, and/or other factors as deemed appropriate by the Department.

J. The operator shall notify the Department within twenty-four (24) hours following the observation or discovery of flyrock outside of the permitted area that resulted from blasting operations at a mine. Based on the flyrock incident, the Department may require the operator to submit a written report outlining the cause of the excessive flyrock and a plan to adequately control flyrock. Any report and plan submitted by the operator must be reviewed by the Department prior to conducting additional blasting.

89-160. Requirements for Substitution of Land to be Reclaimed.

An operator shall have the right to substitute and reclaim an area mined in the past for an area presently being mined, the substitution being subject to approval by the Department. Such substitutions may be made on an acre-for-acre basis if the estimated cost of reclamation is comparable. Other ratios may be agreed upon depending on the relative ease of reclamation or upon the value or desirability of reclaiming such substituted land.

89-170. Departmental Procedure for Granting a Permit.

A. When the Department receives the Application for a Mining Permit, it shall advertise the applicant's intent to mine.

B. The Department may refer copies of the Application for a Mining Permit to the State Water Resources Commission, Department of Health and Environmental Control, Wildlife and Marine Resources

Department, Coastal Council, Department of Archives and History, Institute of Archeology and Anthropology, Department of Highways and Public Transportation, appropriate County Council or County Administrator's office, appropriate town or municipal government office or other state or local agencies for review and comment. The Department may request the assistance of other state agencies or local agencies in evaluating the application and the reclamation plan or in developing the terms and conditions.

C. Within sixty days from the time the completed application for a permit is filed, the Department shall approve, approve with stated modifications, or disapprove the application.

D. Upon approval of the application, the Department shall:

(1) Set the amount of bond required;

(2) Notify the applicant in writing of:

(a) The date of approval;

(b) The amount of bond required;

(c) The date by which bond must be posted, and;

(d) The terms and conditions of the permit.

(3) Send a copy of the approved Reclamation Plan to the local Soil and Water Conservation District.

E. The operator shall have sixty days following the mailing of such notification in which to post the required bond.

F. When the Department receives and approves the required performance bond, it shall issue the permit.

89-180. The Reclamation Bond.

A. In the event a surety bond will be given to secure the obligation for reclamation, Form MR-800 will be completed.

B. In the event cash or registered securities or a savings account assignment will be given to secure the obligation for reclamation, Form MR-900 will be completed.

C. In the event, cash, registered securities, or a savings account assignment will be given to secure the obligation for reclamation, Form MR-1000 must also be completed. All registered securities must be assigned and registered to the State of South Carolina. Savings accounts must be issued jointly in the name of the operator and State of South Carolina.

D. In the event an irrevocable letter of credit will be given to secure the obligation for reclamation, Form MR-1050 will be completed.

E. The following items will be verified by the Department to determine the acceptability of a letter of credit:

(1) The letter of credit must be issued by a financial institution which is federally insured and must be issued or confirmed through a South Carolina institution with a minimum asset value of fifty million (\$50,000,000) dollars.

(2) The document must be immediately payable on demand by and to the State of South Carolina in the full amount of the required bond.

(3) The letter of credit must be accompanied by power of attorney granting the Department full power to assign, appropriate, apply or transfer the deposit or any portion thereof, for the satisfaction of any damages, assessments, late payment charges, penalties, or deficiencies arising out of any default in the performance of the terms covered by the bond.

(4) The letter of credit must contain a clause providing that, in the absence of notice from the financial institution to the Department at least 90 days prior to the stated or any extended expiration date not to renew the credit represented by the letter of credit, the letter of credit will be automatically renewed in full force and effect for an additional one year period.

(5) The letter of credit must authorize the Department to exercise the right to collect the full amount of credit from the financial institution in the event of either (1) a default occurring prior to the expiration date (including any extended date) or (2) failure of the operator to furnish an acceptable substitute bond at least 30 days prior to the expiration of the letter of credit if the financial institution gives proper 90 day notice of intent not to renew the letter of credit.

89-190. Requirements and Procedures for Handling Surety Bonds or Other Securities.

- A. The Department will deposit registered securities, certificates of deposit, passbooks for the assignment of a savings account with the State Treasurer's Office.
- B. Interest, rents or dividends payable on such securities or accounts shall accrue to the interest of, shall be paid to, or shall be withdrawn or collected by the operator.
- C. Prior to posting registered securities as a reclamation bond, and at least annually thereafter, the Department shall require the operator to have a Securities Analyst conduct an evaluation of the financial performance of the underlying entity.
- D. The Department will place cash deposits in an escrow account, non-interest bearing to the operator, with the State Treasurer.

89-200. Amount of Bond or Other Security.

- A. A bond or other security must be provided to cover the land to be affected by mining for a three-year period of operation plus all affected areas including sediment or tailings ponds, stock or waste piles, entrance roads and processing plants. An operator, upon prior approval by the Department, may reduce the required bond amount by reclaiming abandoned mined land.
- B. For mining operations with affected lands greater than twenty-five (25) acres, the Department may require the operator to prepare a written estimate of the cost of reclamation activities. Cost estimates prepared by the operator may be used by the Department in establishing reclamation bond amounts. The cost estimate shall reflect the customary and prevailing rate for performing and completing all reclamation requirements.
- C. In the event a mining operation with an affected area greater than twenty-five (25) acres exceeds the bonded acreage by more than ten (10) percent, the Department shall be notified in writing. Following notification, the Department shall evaluate the bonded acreage and determine the bond amount for the total affected area.
- D. In the event it is found at any time that the amount of disturbed land for which a bond or other surety has been posted is more than the bonded area, the Department may require the operator to file additional bond or surety sufficient to cover the amount of land disturbed by such operation.

89-210. Annual Reclamation Report.

Form MR-1100, entitled "Annual Reclamation Report", shall be completed in typewritten or hand printed form as required by the Act.

89-220. Application for Modifying a Mining Permit and/or Reclamation Plan.

When an operator requests modification of a mining permit and/or reclamation plan, Form MR-1300, entitled "Application for Modifying a Mining Permit and/or Reclamation Plan", shall be completed in typewritten or hand printed form and submitted to the Department.

89-230. Transfer of Operating Permit.

A. In accordance with Section 48-20-70 of the Act, an operating permit may be transferred when one succeeds to the interest of another. An operating permit may be transferred to the successor operator when the following documents have been completed and submitted to the Department for review:

- (1) One copy of Form MR-1400 entitled "Transfer Agreement".
- (2) One copy of Form MR-500 entitled "Reclamation Plan".
- (3) One copy of Form MR-600 entitled "Land Entry Agreement-Owner" (if the mine operator owns the land) or one copy of Form MR-700 entitled "Land Entry Agreement -Lessor/Lessee (if the mine operator leases the land).

B. Following review of the completed documents to transfer an operating permit and receipt of the required reclamation bond, the Department shall issue an operating permit to the successor operator.

89-240. Inspections by the Department.

The Department, by and through its accredited representatives, may conduct inspections and investigations of the permitted area at any reasonable time for the purposes of determining whether the operator has complied with the reclamation plan, the requirements of the Mining Act, any rules and regulations promulgated thereunder, and the terms and conditions of the Certificate of Exploration or operating permit. Prior to or at the time of such inspection or investigation, the Department's accredited representative shall notify the explorer or operator by any appropriate method that an inspection is to be conducted. The accredited representative shall comply with the regulations of the Mine Safety and Health Administration when conducting inspections pursuant to this regulation.

89-250. Criteria for Determining Amount of Civil Penalty.

In determining the amount of civil penalty assessment, pursuant to Section 48-20-220 of the S. C. Mining Act, the Department shall consider the following criteria insofar as they are appropriate to the violation:

- (A) Nature of violation;
- (B) Degree and extent of the harm, including off-site damage;
- (C) Duration of the violation;
- (D) Cause of the violation;
- (E) Cost of compliance and rectifying any harm or damage;
- (F) Violator's previous record of compliance with the Mining Act, or any rules promulgated thereunder, or any mining permit issued to the violator;
- (G) Documented staff investigative costs consisting of salary plus expenses, exclusive of overhead;
- (H) Effectiveness of any action taken by the operator;
- (I) Magnitude of potential or actual gains by the operator resulting from the violation;
- (J) Demonstration of good faith by operator.

89-260. Grounds for Canceling an Application for a Permit.

If the required performance bond is not filed with the Department within sixty days following the mailing of notification of approval of the applicant's application for a permit, the Department will cancel the Application for a Mining Permit including the reclamation plan, unless such delay beyond sixty days can be clearly shown to have been beyond the applicant's control.

89-270. Termination of Mining Operation.

A. The Department may declare a mining operation or a segment of a mining operation terminated when no mineral has been excavated or extracted or overburden removed or regraded for a period of twenty-four (24) consecutive months.

B. At the request of the operator and with the approval of the Department, an operation where no mineral or overburden has been removed for twenty-four (24) consecutive months will not be terminated if mining has not begun or if:

- (1) Best Management Practices for sediment and erosion control are installed to the extent feasible on disturbed areas.
- (2) Drainage control structures such as culverts and ditches are properly installed and maintained.
- (3) Vegetation is established and maintained as determined to be feasible.

89-280. Hearings and Hearing Procedure for Suspension or Revocation of Mining Permits by the Department.

All hearings before the Department involving the suspension or revocation of mining permits shall be conducted in accordance with Section 48-20-160 of the 1976 South Carolina Code of Laws and Act 176 of 1977 as amended; and, any decision of the Department shall be in writing and shall comply with the provisions of Act 176 of 1977 as amended.

89-290. Hearing Procedure for Appeals of a Decision of the Department to the South Carolina Mining Council.

A. Any applicant for a mining permit or any person who is aggrieved and is directly affected by the permit may appeal to the Mining Council from any decision or determination of the Department issuing, refusing, modifying, suspending, revoking, or terminating an operating permit or reclamation plan, or imposing any term or condition on such permit or reclamation plan.

B. The person taking the appeal shall within thirty days after notification of the Department's decision, give written notice to the Mining Council through its secretary that he desires to take an appeal, at the same time filing a copy of the notice with the Department. The said notice shall contain a statement describing the specific matters appealed.

C. If more than one appeal is filed with the Mining Council within the thirty day period following the decision by the Department, then the Council may consolidate the hearing and review of the appeals by the Mining Council.

D. At its annual meeting, the Mining Council shall establish a standing Appeals Committee to hear appeals pursuant to this Section. This Committee shall consist of the Chairman of the Mining Council and two members elected by a majority of the Council, one member being a mining industry representative and the other not being a mining industry representative as designated in the organizational composition of the Mining Council. An alternate shall be elected for each of the above Committee members following the same procedure. In the event that the Chairman is unable to serve on the Committee, the Vice-Chairman shall assume the chairmanship for the period of time necessary to address the pending appeal. Nothing herein shall preclude the election of an appeals committee member or alternate to fill a vacancy during the year at any called meeting of the Mining Council.

E. If the person taking the appeal requests a hearing before the hearing panel, the Chairman of the Council may accept recommendations for member(s) of the hearing panel. The hearing panel may consist of one or more individuals. The Chairman of the Council shall be responsible for appointing the hearing panel which must be agreed to by the appellant(s), the Council, the operator and the Department.

F. Hearings shall be conducted and a final decision issued by the Appeals Committee or the Hearing Panel unless the appellant specifically requests a hearing before the full Mining Council in his written notice of appeal. In this event, the full Mining Council may hear the appeal or may, by a majority vote, assign the appeal to be heard by the Appeals Committee. At any hearing conducted by the Council, a majority of the members shall constitute a quorum; at any hearing conducted by the Appeals Committee all three members shall be required for a quorum.

G. When a hearing has been scheduled by the Mining Council, notice of the hearing shall be given to all concerned parties at least twenty (20) calendar days prior to the date on which the hearing will be held.

(1) The notice of a hearing shall be sent by the Chairman of the Council.

(2) This notice shall contain all of the following information:

(a) The date of the notice;

(b) The Council's name, address and telephone number;

(c) A statement of the date, time, and location of the hearing;

(d) A statement of the legal authority and jurisdiction under which the hearing is to be held;

(e) A reference to the particular sections of the statutes and rules involved; and

(f) A short statement describing the specific matters appealed.

H. All hearings shall be conducted in accordance with the Administrative Procedures Act 176 of 1977 as amended, except as may be herein provided.

I. The final order shall be issued by the Chairman of the Council, and the decision of the Appeals Committee, Hearing Panel or Council shall represent the view of the majority of the Appeals Committee, Hearing Panel or Council members voting at the hearing.

J. The final order shall be written within thirty (30) days following the hearing and shall comply with the provisions of the Administrative Procedures Act 176 of 1977 as amended.

89-300. Declaratory Ruling.

A. Any person may petition the Council for a declaratory ruling as to the applicability of any statutory provision or the content of administrative forms or of any rule or order of the South Carolina Mining Council.

B. Such a petition shall be in written form and addressed to the Chairman of the Council.

C. A decision on the petition shall be issued in written form within sixty days of receipt of the petition, provided that this period may be extended with the written approval of the petitioner.

89-310. Petition for Promulgation, Amendment, or Repeal of Regulations.

A. Any interested person may petition the South Carolina Mining Council requesting the promulgation, amendment, or repeal of any regulation.

B. This petition shall be in written form and addressed to the Chairman of the Council.

C. Within thirty days of receipt of the petition, the Council shall either deny the petition or initiate regulation-making proceedings.

D. In any case where the Council denies the petition, it shall do so in written form and it shall state the reasons for its denial.

E. A hearing may be initiated by any aggrieved person seeking to contest the authority of the South Carolina Mining Council to promulgate a regulation provided that a written request for such a hearing is submitted to the South Carolina Mining Council prior to final promulgation of the regulation.

89-320. Notices.

Whenever written notice is required to be given by the Department, such notice shall be mailed by registered or certified mail to the permanent address of the applicant or operator as set forth in his most recent application for an operating permit or for a modification or latest Annual Reclamation Report. No other notice shall be required.

89-330. Criteria for Approval of Reclamation Plan and Completed Land Reclamation.

A. Minimum standards for final slopes in all excavations in soil, sand, gravel, or other unconsolidated materials.

The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land and shall not be steeper than 3H:1V, unless approved by the Department.

B. Minimum safety standards for excavations.

(1) Provisions for safety to persons and to adjoining property must be provided in all excavations. If deemed necessary by the Department, other appropriate provisions may be required, including but not limited to, fences, guardrails, sloping, warning signs and other protective measures.

(2) Safety to adjoining property shall be provided by adequate setback, slope angles, or other provisions as deemed necessary by the Department. If necessary to provide safety, mine operators may be required to leave a minimum undisturbed buffer zone between the mine excavation and contiguous property line or highway right-of-way, unless other safety provisions are approved by the Department.

C. Minimum standards for the configuration of overburden and spoil banks.

In open cast mining operations, all overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land. Side slopes of spoil banks, peaks, ridges, and refuse shall not be steeper than 3H:1V, unless approved by the Department.

D. Minimum standards for pools of water, streams, lakes, ponds and marshlands.

(1) In no event shall any provision of the Act be construed to allow small pools of water that are, or are likely to become noxious, odious, or foul to collect or remain on the mined land. Lakes, ponds, wetlands or marshlands shall be considered adequately reclaimed lands when approved by the Department.

(2) Suitable drainage ditches, conduits, or surface gradient shall be constructed to avoid collection of noxious, odious, or foul pools of water.

(3) Those portions of the reclamation plan involving lakes and ponds shall be approved if:

- (a) A supply of water sufficient to maintain the approximate design pool elevation in accordance with the reclamation plan is available. In all cases, a sufficient water supply shall be available to maintain a minimum water depth of four (4) feet on at least fifty (50) percent of the surface area of the lake or pond unless the lake or pond is to be used for aquaculture;
 - (b) Side slopes no steeper than 3H:1V extending to the anticipated average water level except for excavations in rock or where other special considerations are approved by the Department;
 - (c) Structures impounding a lake or pond conform to standards set forth in requirements promulgated under the Dams and Reservoirs Safety Act or designed by a professional engineer;
 - (d) All waters shall conform to standards set forth by the South Carolina Department of Health and Environmental Control for surface waters in South Carolina. The specified standards will not be considered violated when values outside the established limits are caused by natural conditions and when no significant environmental harm would result;
 - (e) Waters designated for fishing lakes shall have at least twenty (20) percent of the total surface area less than six (6) feet deep, with an average minimum depth of three (3) feet;
 - (f) Water designated for use in water contact sports shall meet the following conditions: all areas within five feet of the lowest expected water level shall be cleared of all stumps, logs, and other debris, and there shall be no sudden dropoffs or deep holes. A three-foot deep shelf around the shore line is permissible for control of aquatic vegetation;
 - (g) Water designated to be used as waterfowl areas shall have a means of controlling the water level so that at least fifty (50) percent of the area can be either drained or flooded, unless otherwise approved by the Department;
 - (h) Water areas designated for other uses, such as for aesthetics, irrigation, stock watering, aquaculture, marshlands, or wetlands, shall be considered adequately reclaimed upon approval by the Department.
- (4) Stream banks are adequately reclaimed when returned to the approximate original slope and vegetated. Such reclamation shall be done in a manner so as not to adversely affect downstream areas.

E. Minimum standards for cropland.

Slopes and the condition of the surface must be such that commonly used farm machinery can cultivate, maintain, and harvest the area safely. Conservation practices essential for controlling erosion and sediment must be established, unless waived by the Department.

F. Minimum standards for grassland.

The operator shall establish on a continuing basis the vegetative cover and soil stability appropriate to the area. Conservation practices essential for controlling both on-site and off-site erosion and siltation must be established. A minimum of seventy-five (75) percent vegetative ground cover, with no substantial bare spots, must be established and maintained into the second growing season. Where the Department finds that because of special soil conditions it is not feasible to establish a minimum of seventy-five (75) percent ground cover, it may approve a reclamation plan consistent with the original soil condition.

G. Minimum standards for woodland.

(1) The operator shall establish on a continuing basis the vegetative cover and soil stability appropriate to the area. Conservation practices essential for controlling both on-site and off-site erosion and siltation must be established.

(2) Areas reclaimed to woodland must be planted or seeded with respect to species selection, spacing, and ground preparation, according to the recommendations of the South Carolina Commission of Forestry or a registered forester.

(a) Survival meeting the recommendations of the South Carolina Commission of Forestry or a registered forester with no substantial bare spots must be achieved through one full growing season;

(b) Ground cover or other conservation practices shall be required in areas where erosion will be active until the trees or shrubs establish a ground cover from their own litter. Ground cover may be annual or perennial vegetation, or mulching. The requirement for ground cover may be omitted in sandy areas if the reclaimed area has a closed drainage system as long as temporary measures are used to prevent significant erosion and siltation within such areas.

H. Minimum standards for managed wildlife habitat.

Successful reclamation of this type requires highly specialized studies and the operator should work closely with the Department or other conservation agencies in planning and installing such a project. Approval of reclamation of this type will be considered on a case-by-case basis.

I. Minimum standards for reclamation involving a sanitary landfill or other waste disposal.

The Department will refer this type of reclamation over to the South Carolina Department of Health and Environmental Control for permitting, administration and enforcement of operational and monitoring requirements. When the Department receives notice that the South Carolina Department of Health and Environmental Control's requirements have been met, the Department will then release all or the appropriate portion of the operator's surety bond or other security, provided that the operator has established on a continuing basis the vegetative or other ground cover necessary to control or prevent erosion, the soil stability, and the water and safety conditions, appropriate to the area as required by these regulations.

J. Other reclamation.

Mined land can be reclaimed to many other uses. The Department shall encourage and work with operators desiring to reclaim land to unconventional and innovative post-mining uses of affected lands. Such reclamation may be for recreational, developmental, educational or other uses.

K. Notwithstanding any other provision in this regulation or any other applicable regulation issued pursuant to Section 48-20-210 of the Act, the criteria for completed reclamation under an approved reclamation plan, as it pertains to any surety, shall be that criteria set forth in the regulations in effect at the time of the issuance of the mining permit and approved reclamation plan or that criteria in effect at the time of approval of any modification of the mining permit or reclamation plan provided the surety has consented hereto.

89-340. Fee Schedule.

A. In accordance with Section 48-20-100 of the S. C. Mining Act (S. C. Code of Laws, 1976, as amended), the following mining and reclamation fee schedules are established:

- (1) Mining permit application fee \$600.
- (2) Mining permit conversion fee \$600. (In lieu of Permit Renewal)
- (3) Mining permit substantial modification fee \$600.
- (4) Mining permit transfer fee \$600.
- (5) Certificate of Exploration fee \$300.

B. In accordance with Section 48-20-120 of the S. C. Mining Act (S. C. Code of Laws, 1976, as amended), the following Annual Operating Fee has been established:

- (1) Mining Annual Operating Fee Per Mine \$375.
(Included as part of Annual Reclamation Report)

- (2) Mining Annual Operating Fee Late Penalty \$50. per month;

89-350. Administrative Forms.

Administrative forms to be used by the Department are as follows:

- A. Form MR-200 Application for a Certificate of Exploration
- B. Form MR-300 Reclamation Plan for Exploration
- C. Form MR-400 Application for a Mining Permit
- D. Form MR-500 Reclamation Plan
- E. Form MR-600 Land Entry Agreement-Owner
- F. Form MR-700 Land Entry Agreement-Lessor/Lessee
- G. Form MR-800 Reclamation Bond Form to Post a Surety Bond
- H. Form MR-900 Reclamation Bond Form to Post a Bond for Other Than a Surety Bond
- I. Form MR-1000 Reclamation Bond Form for Assignment
- J. Form MR-1050 Reclamation Bond Form to Post an Irrevocable Letter of Credit
- K. Form MR-1100 Annual Reclamation Report

- L. Form MR-1300 Application for Modifying a Mining Permit and/or Reclamation Plan
- M. Form MR-1400 Transfer Agreement

APPENDIX E: HAZARDOUS WASTE
MANAGEMENT FACILITIES: DHEC (SC
CODE OF REGULATIONS 61-104)

CHAPTER 61 .

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL SECTION 104.

Hazardous Waste Management Location Standards. [SC ADC 61-104] **61-104. Hazardous Waste Management Location Standards. [SC ADC 61-104]**

(Statutory Authority: 1976 Code Sections 44-56-30 et. seq.)

I. Purpose and Scope:

A. This regulation creates State requirements for the location of hazardous waste treatment, storage, and disposal (TSD) facilities. Because the location of hazardous waste TSD facilities should be limited to those areas where there will be minimal impact on human health and the environment, all operating TSD facilities must demonstrate to the Department that their location complies with this regulation.

B. The scope of the regulation is limited to issues of public health and protection of the environment. The authority to institute land use planning and zoning is an option to be instituted by local governments in South Carolina. Although the S.C. Department of Health and Environmental Control is often requested to deny permits to industries which propose activities near residential or other areas, such requests can only be considered by the Department when public health and the environment are at risk. Aesthetic considerations, nuisances such as incidental odors, noises, and lights, or competing economic interest are mainly regulated through zoning by local governments and are not addressed in this regulation.

II. Applicability:

A. This regulation shall apply to all applicants for permits as required by R.61-79 to treat, store, or dispose of hazardous waste; provided, however, it shall not apply to those applicants for permits for post-closure activities only. For those units permitted prior to the effective date of this regulation, demonstration of compliance with these location standards shall be deemed a condition of the permit. permitted until the applicant demonstrates compliance with these location standards. For units permitted prior to the effective date of this regulation, failure to submit a demonstration of compliance with these location standards within one hundred and eighty days of the effective date of this regulation shall be deemed to be a failure to meet the conditions of the permit.

B. [Blank]

C. Demonstration of compliance with this regulation must accompany the permit application required by R.61-79.270.10 unless the application is for a permit reissuance.

III. Definitions:

A. "Adjacent" to a wetland means bordering, contiguous, neighboring, or hydrologically interconnected via surface water or groundwater. Adjacent wetlands include, but are not limited to, those areas that are separated from other waters of the State by man-made dikes, berms, or barriers, natural river berms, and beach dunes. Areas hydrologically interconnected are considered to be those where a realistic potential exists for migration of a release or spill to an adjacent wetlands via surface water or groundwater.

B. "Appurtenance" means any ancillary equipment that is stationary to the unit and contains or transports hazardous waste.

C. "Areas of complex hydrogeology" typically include, but are not limited to, karst terrane; fractured rock formations (joints and faults; excludes healed fractures) irregularly stratified geologic deposits (e.g., certain fluvial, deltaic and barrier island deposits); mixed hydrogeologic regimes (e.g., sedimentary deposits overlying fractured crystalline bedrock); folded areas where flow paths may be contorted, and

recharge zones where background water quality cannot be determined.

D. "Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, adjacent, or in the immediate area of the unit, because of natural or man-made events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, creep, solifluction, liquefaction, block sliding, rock fall, and slump.

E. "Braided" means a river system characterized by an intricate network of dividing and reuniting channels (frequently more than one) around a network of predominantly sand and gravel bars and islands, causing the river channels to follow a sinuous rather than straight course.

F. "Cave" means a naturally occurring cavity, recess, chamber, or series of chambers and galleries beneath the surface of the earth.

G. "Class GA groundwater" is defined in R.61-68 as those groundwaters that are characterized by either of the following factors: the groundwater is irreplaceable because no reasonable alternative source of drinking water is available to substantial populations, or the groundwater is ecologically vital because it provides the base flow for a particularly sensitive ecological system that, if polluted, would destroy a unique habitat.

H. "Coastal marine floodplain" means the area along any coast that has historically been inundated during times of flooding, but is otherwise above water, except for standing water such as in a marsh or pond.

I. "Displacement" means the relative movement of any two sides of a fault measured in any direction.

J. "Ephemeral" means a short-lived or transitory river or portion of a river that flows only in direct response to precipitation.

K. "Existing unit" means a unit which has received a hazardous waste permit by the effective date of this regulation or has met the requirements for interim status under R.61-79.270.70.

L. "Expansion or Expanding unit" means any increase in the capacity of an existing unit, as defined above, any change in the types of waste received by an existing unit, any increase in the quantities of waste received by an existing unit on a periodic basis, or the addition of a unit or units for the same activity as the existing unit.

M. "Fault" means a fracture or zone of fracturing in any material along which there has been an observable amount of displacement of the sides relative to one another and parallel to the fracture.

N. "Flow net" is a graph of flow lines and equipotential lines used in the study of groundwater flow that represents two-dimensional movement through porous media. Equivalent hydrogeologic models may be used in place of a flow net, subject to the approval of the Department.

O. "Fluvial floodplain" means the area along any river or stream that has historically been inundated during times of flooding, but is otherwise above water, except for standing water such as in a marsh, pond, or oxbow lake.

P. "Hazardous waste" means a hazardous waste as defined in R.61-79.261 of the South Carolina Hazardous Waste Management Regulations (SCHWMR).

Q. "Historical migration zone" means the area within which erosion of coastal marine, lacustrine or fluvial floodplains is predicted to occur within the next 25 years. The historical migration zone includes the following landforms: coastal marine, lacustrine, and braided or meandering fluvial systems; including ephemeral systems and local segments of other fluvial floodplains, such as canaliform systems that are

locally braided, locally meandering, or ephemeral.

R. "Holocene" means the most recent geologic epoch within the Quaternary Period, from the end of the Pleistocene epoch to the present.

S. "Horizontal ground acceleration" is the change in velocity over time relative to horizontal movement of the earth's surface as measured at a particular point during an earthquake.

T. "Karst terrane" means areas where distinctive topography having characteristic surface and subterranean features is developed because of liquefaction of overburden or the dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrane include but are not limited to sinkholes, closed depressions, sinking streams, caves, and blind valleys. Characteristic subsurface solution features may be evidenced by drilling rod drops and fluid loss during well drilling.

U. "Lacustrine floodplain" means the area along any lakeshore that has historically been inundated during times of flooding, but is otherwise above water, except for standing water such as in a marsh or pond.

V. "Land-based unit" means a unit which is used for the treatment, storage, or disposal of a hazardous waste and is subject to Section R.61-79.264 Subpart F including surface impoundments, landfills, waste piles, land treatment units. Units exempt from the Subpart F requirements under 264.90(b) and covered indoor waste piles in compliance with Section 264.250(c) shall be considered as non-land-based units.

W. "Locally" means a particular segment or the reach of a river which is characterized by the distance that encompasses several river bends or wave lengths, each being a minimum of eight or more channel widths.

X. "Meandering" means a sinuous river system characterized by a single main channel that is regionally characterized by a series of irregular "S" shaped curves.

Y. "Navigable waters" means those waters which are now navigable, or have been navigable at any time, or are capable of being rendered navigable by the removal of accidental obstructions, by rafts of lumber or timber or by small pleasure or sport fishing boats.

Z. "New unit" means a unit, other than an existing or expanding unit, as defined above, for which a permit decision will be made after the effective date of this regulation.

AA. "Non-land-based unit" means an incinerator, tank and its associated piping and underlying containment system, or container storage area, and other units which are used for the treatment, storage, or disposal of a hazardous waste and are not subject to Section R.61-79.264 Subpart F.

BB. "One hundred-year flood" means a flood discharge that has a one-percent chance of being equaled or exceeded in any given year.

CC. "One hundred-year floodplain" means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

DD. "Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a unit.

EE. "Post-closure activities" means those regulated activities performed at a TSD unit after closure has been completed and approved by the Department.

FF. "Public drinking water supply" means water, whether bottled or piped, provided to the public for human consumption; provided that the public drinking water supply shall not include a drinking water system serving only a single private residence or dwelling (R.61-58).

GG. "Recharge area" for a particular saturated geologic unit is defined as areas where water enters the

geologic unit through downward migration. Principal examples include: outcrop areas of a particular geologic unit where the potentiometric head within the unit decreases with depth; and, in the subsurface, where the potentiometric head relationship and leakage factors across any confining unit allow for downward flow into a particular geologic unit.

HH. "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous waste or hazardous constituents into the environment including the abandonment or discarding of containers, barrels, and other closed or open receptacles containing hazardous waste or hazardous constituents.

II. "Risk Assessment" means a study consisting of Hazard Identification, Dose-Response Assessment, Exposure Assessment and Risk Characterization. The study must conform at least to the EPA Guidance: "Superfund Public Health Evaluation Manual" EPA #540/1-86/06 October 1986 or more stringent guidelines as established by the Department.

JJ. "Sole source aquifer" is defined as specified in the Federal Safe Drinking Water Act.

KK. "Structural integrity" means the ability of a unit to withstand physical forces exerted upon designed components, appurtenances, and containment structures (e.g., liners, dikes) of the unit.

LL. "Underground mine" means any subterranean excavation for minerals or ores having a roof of undisturbed rock (as opposed to open-pit excavations).

MM. "Washout" means the movement of hazardous waste from the unit as a result of a flood event.

NN. "Wetland(s)" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands must possess three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

IV. Location Criteria:

A. Adverse geologic and hydrologic settings:

1. Seismic considerations:

a. New and expanding land-based and non-land-based units shall not be located within a minimum of two hundred feet of a fault where displacement during the Holocene Epoch within the Quaternary Period has occurred. The setback distance or the time period for displacement may be expanded by the Department as necessary to protect human health and the environment.

b. Owners or operators of new and expanding land-based and non-land-based units must demonstrate to the satisfaction of the Department that the structural integrity of the unit will allow it to maintain confinement of the hazardous waste or hazardous waste constituents such that no adverse environmental or health impacts will occur during and after any ground movement, liquefaction, or seismic wave motion equal to the maximum horizontal acceleration predicted with a ten percent probability of occurrence at the site in two hundred and fifty years.

c. Owners or operators of existing land-based and non-land-based units must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's unless the owners or operators can demonstrate to the satisfaction of the Department that the requirements specified in paragraphs 1.a. and 1.b. of this section are met for the existing units.

2. Floodplains

a. New and expanding land-based units and appurtenances shall not be located in a one hundred-year

floodplain or in the historical migration zone of coastal marine, lacustrine, or braided or meandering fluvial system.

b. New and expanding non-land-based units and appurtenances shall not be located in a one hundred-year floodplain or the historical migration zone of a coastal marine, lacustrine, or braided or meandering fluvial system, unless the owner or operator demonstrates to the satisfaction of the Department that the unit and appurtenances are designed, constructed, operated, and maintained to prevent the washout of any hazardous waste by a one-hundred-year flood, and to enable the unit to withstand the effects of erosion during its active life.

c. Owners or operators of existing land-based and non-land-based units and appurtenances located in a one hundred-year floodplain, but outside the historical migration zone of a coastal marine, lacustrine, and braided or meandering fluvial system, must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR unless the owner or operator can demonstrate to the satisfaction of the Department that such units and appurtenances are designed, operated, and maintained to prevent washout of any hazardous waste by a one hundred-year flood, and that such units and appurtenances can withstand the effects of erosion during their active life.

d. Owners or operators of existing land-based units and appurtenances located inside the historical migration zone of a coastal marine, lacustrine, braided or meandering fluvial system must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR.

e. Owners or operators of existing non-land-based units and appurtenances located inside the historical migration zone of a coastal marine, lacustrine, or braided or meandering fluvial system must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR unless the owner or operator can demonstrate to the satisfaction of the Department that the unit and appurtenances are designed, constructed, operated, and maintained to withstand the effects of erosion during its active life.

f. The historical migration zone, as outlined under paragraphs 2.a. through 2.e., shall be determined by the owner or operator through a geomorphic study as approved by the Department.

3. Underground mines and caves; the placement of any hazardous waste in any underground mine or cave is prohibited.

B. Unstable terrains

1. Karst

a. New and expanding land-based and non-land-based units shall not be located in karst terrane unless the owner or operator demonstrates to the satisfaction of the Department that:

(1) A geotechnical and hydrogeologic investigation of the site shows that the site is historically stable and subsidence into or collapse of subsurface solution cavities as a consequence of instability caused by liquefaction of overburden or by the dissolution of soluble rocks will not occur; or

(2) Where the requirement of paragraph 1.a.(1) cannot be met, that appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of karst terrane.

b. Owners or operators of existing land-based or non-land-based units located in karst terrane must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's, unless the appropriate demonstration specified in paragraphs 1.a. of this section is made to the satisfaction of the Department.

2. Poor foundation conditions

a. New and expanding land-based and non-land based units shall not be located in regions where poor foundation conditions may exist unless the owner or operator demonstrates to the satisfaction of the Department the following:

- (1) The absence of poor foundation conditions at, beneath, adjacent, or in the immediate area of the unit; or,
- (2) If poor foundation conditions exist, the problem conditions are corrected.

b. Owners or operators of existing land-based and non-land-based units located in regions where poor foundation conditions may exist must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR, unless the owner or operator demonstrates to the satisfaction of the Department:

- (1) The absence of poor foundation conditions, at, beneath, and adjacent to the unit, or in the immediate area of the unit, or
- (2) If poor foundation conditions exist, the problem conditions can and will be corrected by modifying subsurface soil conditions, unit location, or design and operation of the unit.

3. Areas susceptible to mass movement.

a. New and expanding land-based and non-land-based units shall not be located in regions where mass movement may occur unless the owner or operator demonstrates to the satisfaction of the Department the following:

- (1) That the unit is not in an area susceptible to mass movement, or
- (2) If evidence of mass movement exists, appropriate engineered measures are applied to ensure unit structural integrity and to eliminate the threats posed to human health and the environment by mass movement.

b. Owners or operators of existing land-based and non-land-based units located in regions where mass movement may occur must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR, unless the owner or operator demonstrates to the satisfaction of the Department the following:

- (1) The unit is not in an area susceptible to mass movement, or
- (2) If evidence of mass movement exists, appropriate engineered measures can and will be applied to ensure unit structural integrity and to eliminate the threats posed to human health and the environment by mass movement.

C. Media-specific requirements

1. Groundwater

a. Groundwater vulnerability.

(1) New land-based units and expansions of existing land-based units are prohibited in areas where the owner or operator cannot demonstrate to the satisfaction of the Department:

- (a) That the unit is underlain by a protective clay or silty clay unit. The thickness of this unit must be greater than five feet. The hydraulic conductivity of this unit must not exceed 1E-06 centimeters per

second. This unit must be composed of materials with a protective high ion exchange capacity and it should have a high organic content. The continuity of this protective unit must be such that it exceeds a minimum of two hundred feet in the hydraulically upgradient direction and a minimum of five hundred feet in the hydraulically sidegradient directions, and it is continuous from below the site to the point where shallow groundwater is discharging to the nearest surface water body; and

(b) That the site is not located in an area where the hydrogeologic conditions allow the migration of groundwater in shallow geologic units, having little potential as an underground source of drinking water, into deeper units. Specific detail concerning this requirement are as follows. At all locations across the site, the potentiometric head in the shallow saturated geologic material overlying the confining unit described in paragraph (a) of this section must be lower than the potentiometric surface of the geologic material below the confining unit (i.e., an upward hydraulic gradient must exist). If the material above the confining unit is not permanently saturated under natural conditions, then the potentiometric head in the geologic units underlying the confining unit must be at an elevation higher than the top of the confining unit; and

(c) That a minimum ten foot separation can be maintained between the base of the waste management unit and the high water table as it exists naturally, or through long-term, permanent and maintenance-free methods; and

(d) That a minimum fifteen foot vertical separation of naturally occurring or engineered material can be maintained between the base of the constructed liner and bedrock. The nature of the material making up this interval is subject to Department approval; and

(e) That the unit is not located over an area where a stratum of limestone exhibiting secondary permeability with an average thickness of greater than five feet lies within fifty feet of the base of the unit.

(f) That a unit can be located such that if a leak should occur, the resulting groundwater discharge to the receiving surface water body shall not contravene standards set by the State Water Classifications and Standards (R.61-68).

(2) Owners or operators of existing land-based units which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's, unless, except in the case (1)(e) of this section, appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

(3) New and expanding non-land-based units are prohibited in areas where the owner or operator cannot demonstrate to the satisfaction of the Department that the requirements of paragraph (1) of this section are met or that appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

(4) Owners or operators of existing non-land-based units which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's unless appropriate engineered measures are applied to ensure the unit's structural integrity and to contain, or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

b. Complex hydrogeology.

(1) New land-based units and expansions of existing land-based units are prohibited in areas where the owner or operator cannot demonstrate to the satisfaction of the Department:

(a) That the hydrogeologic properties of the site can be adequately characterized. The characterization shall include a detailed description of the geologic units below the site (including mineralogy, sedimentary

structures, thickness, continuity, and structure), the hydraulic properties of each geologic unit (including secondary porosity and a discussion of variations noted across the site), and direction and rate of groundwater flow within the uppermost aquifer and all interconnected aquifers and confining units using a groundwater flow net. In addition, the relationship between the units below the site to locally and regionally recognized geologic and hydrogeologic units must be described; and

(b) Compliance with the groundwater monitoring requirements under R.61-79.264 Subpart F of the SCHWMR's and

(c) The feasibility of a corrective action program at the site. The demonstration shall show how a corrective action response will be effectively implemented to prevent a release to groundwater from migrating beyond the facility property boundary. The corrective action feasibility demonstration shall illustrate all the factors that are necessary to be in compliance with the corrective action requirements under R.61-79.264 Subpart F of the SCHWMR's.

(2) Owners or operators of existing land-based units in areas which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's.

(3) New and expanding non-land-based units are prohibited where the owner or operator cannot demonstrate to the satisfaction of the Department that the requirements of paragraph (1) of this section are met or that appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

(4) Owners or operators of existing non-land-based units which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's unless appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

c. Groundwater resource value.

(1) New land-based units and expansions of existing land-based units shall not be located over Class GA groundwater or over the recharge area for Class GA groundwater as designated by the Department, over a sole source aquifer, or over the recharge area for a sole source aquifer as designated by the Department.

(2) Owners or operators of existing land-based units which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's.

(3) New and expanding non-land-based units are prohibited in areas where the owner or operator cannot demonstrate to the satisfaction of the Department that the requirements of paragraph (1) of this section are met, or that appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

(4) Owners or operators of existing non-land-based units which cannot meet the requirements of paragraph (1) of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's unless appropriate engineered measures are applied to ensure the unit's structural integrity and to contain or eliminate any adverse effects to human health and the environment that may occur as a result of a release from the unit.

2. Surface water

a. New and expanding land-based and non-land-based units shall be prohibited in the following areas:

- (1) Within a minimum of one thousand feet of any navigable waters.
- (2) Within that portion of the drainage basin included in a one-half mile radius, at a minimum, on the upstream side of a public drinking water supply intake from a river or stream;
- (3) Within that portion of the drainage basin which is within one-half mile, at a minimum, of a lake, pond, or reservoir used as a source of public drinking water supply.

b. The owner or operator of existing land-based and non-land-based units located within the prohibited areas listed in 2.a. above must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's unless the owner or operator demonstrates to the satisfaction of the Department the following:

(1) The capability of the unit and the area within the prohibited areas listed in 2.a. above to control and/or contain run-off from the maximum rainfall in twenty four hours from the twenty five-year storm and the capability to divert run-on from land adjoining this area and the unit during such a storm unless sufficient capacity is included in the run-off system to control and/or contain run-on.

(2) The result of any release of hazardous waste to the receiving surface water body will not contravene standards set by the State Water Classifications and Standards (R.61-68).

c. No new and expanding unit shall be located within a minimum of one-half mile of a federally designated wild and scenic river or a state designated scenic river.

3. Air

a. New and expanding hazardous waste units shall not be located in an EPA designated non-attainment area unless the owner or operator demonstrates, prior to operation, that the unit will be in compliance with the Department's Air Pollution Control Requirements for non-attainment areas.

b. The owner or operator of new, expanding and existing hazardous waste units must describe air quality problems which may result from the maximum operations of hazardous waste units. To provide information on the facility's impact on air quality, the owner or operator must prepare an assessment of the air quality impacts which may occur based on historical or estimated meteorological conditions and to what extent such respective problems and conditions will affect neighboring communities including potential damage to wildlife, crops, vegetation and physical structures, public health and the environment.

c. The owner or operator of new, expanding and existing hazardous waste units must prepare a plan for operations when an Air Stagnation Advisory (ASA) is issued for the area in which the hazardous waste unit is located. An ASA is issued by the national Weather Service to local media and is broadcast on the National Oceanic and Atmospheric Association (NOAA) radio network. The facility must describe what actions will be taken to minimize emissions for the duration of the ASA. In addition, the facility must describe what actions will be taken in the event that any stage of an air pollution episode (as described in SC Air Pollution Control Regulation No. 61-62.3) is declared for that area. These actions must, at a minimum, meet the requirements set forth in Section II of SC Air Pollution Control Regulation No. 61-62.3 for those operations directly related to the facility's hazardous waste unit.

D. Ecological resources:

1. Wetlands

a. New land-based and non-land-based units shall be prohibited in or adjacent to wetlands.

b. Expansions of existing land-based and non-land-based units shall be prohibited in wetlands.

c. Expansions of existing land-based and non-land-based units shall be prohibited adjacent to wetlands unless the following requirements are met by the owner or operator:

(1) All expansion will be a minimum of five hundred feet from a wetlands.

(2) The owner or operator must demonstrate to the satisfaction of the Department long-term integrity of the unit so as to prevent migration of hazardous waste or hazardous constituents into the wetland and to ensure protection of human health and the environment. Such a demonstration shall include adequate design elements and operating procedures to address the following factors:

(a) Erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the unit or ancillary structures,

(b) Erosion, stability, and migration potential of dredged and fill materials used to support the unit or ancillary structures,

(c) Pathways for movement of hazardous waste or constituents and the migration potential of these materials in the event of a release from the unit,

(d) Ease and ability of characterizing groundwater and surface water flow rates and directions and the effectiveness of groundwater and surface water monitoring in the presence of tidal and other hydrogeologic influences, and

(e) Any additional factors, as necessary, to demonstrate that the integrity of the unit in or adjacent to the wetland is sufficiently protective of human health and the environment.

(3) The owner or operator must demonstrate to the satisfaction of the Department that the unit will be designed and operated so as to provide adequate protection of the ecological resources of the wetland from migration of hazardous waste or hazardous constituents. The demonstration shall include, but not be limited to, consideration of the following factors:

(a) The nature and chemical characteristics of the waste and constituents managed in the unit including its persistence, toxicity, mobility, and propensity to bioaccumulate,

(b) Impacts on fish, wildlife, and other marine resources and their habitat from releases of hazardous wastes or hazardous constituents that may result as a consequence of a unit expansion,

(c) The potential effects of catastrophic hazardous waste or constituent releases to the wetland and the resultant impacts on the environment, and

(d) Any additional factors, as necessary, to demonstrate that ecological resources in or adjacent to the wetland are sufficiently protected.

(4) The owner or operator shall offset unavoidable wetland impacts through wetlands restoration or creation.

(5) The owner or operator must comply with other Federal requirements, as applicable, including Section 10 of the Rivers and Harbors Act of 1899, Executive Order 11990 (Protection of Wetlands), and Executive Order 11988 (Floodplain Management).

(6) Where the proposed expansion involves the discharge of dredged or fill material in a wetland or other waters of the United States, the owner or operator must apply for a permit by the U. S. Army Corps of Engineers as required under Section 404 of the Clean Water Act.

d. Owner or operators of existing land-based or non-land-based units located in or adjacent to a wetland, including wetlands within the facility property, shall close the unit unless the requirements under

paragraphs 1.c.(1)-(6) of this section are met.

2. Other environmentally sensitive areas

a. New and expanding land-based and non-land-based units shall be prohibited in the following areas:

(1) On prime farmland as designated by the United States Soil Conservation Service;

(2) Within an area that will adversely impact an archeological site as determined by the State Historic Preservation Officer and the State Archaeologist or a historic site as determined by the State Historic Preservation Officer;

(3) Within a minimum of one-half mile of national or state parks, national wildlife refuges, major water impoundments of one hundred acres or larger, state heritage preserves as defined in Section 51-17-10 of the South Carolina Code of Laws, designated wilderness areas of a national forest, and areas of special national or regional natural, recreational, scenic, or historic value, or other significant environmentally sensitive areas.

b. The owner or operator of existing land-based and non-land-based units located within the prohibited areas listed in 2.a. above must submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's, unless the owner or operator demonstrates to the satisfaction of the Department that the environmentally sensitive area is adequately protected and will not be adversely affected by the hazardous waste activity at the unit.

E. Buffer zones and setbacks:

1. Buffer zones

a. Owners or operators of new, expanding, and existing land-based units shall establish a dedicated buffer zone of at least but not necessarily limited to two hundred feet, between the unit and the facility property boundary. The required distance will include the minimum of two hundred feet, and any additional distance determined appropriate to adequately ensure that groundwater time-of-travel measured along a one-hundred foot flow line originating at the base of the unit, allows adequate time to implement the corrective action response necessary to remedy a hazardous waste release to groundwater and to contain or eliminate the release within the facility property boundary. Calculation of the groundwater time-of-travel shall be made as specified under EPA Document (530-SW-86-0228) entitled Criteria for Identifying Areas of Vulnerable Hydrogeology under the Resource Conservation and Recovery Act.

b. New and expanding land-based units that cannot establish a dedicated buffer zone to fulfill the requirements under paragraph 1.a. of this section are prohibited.

c. Owners or operators of existing land-based units that cannot establish a dedicated buffer zone to fulfill the requirements under paragraph 1.a. of this section shall submit to the Department an amended closure plan and close the unit in accordance with the requirements in R.61-79.264 or 265 Subpart G of the SCHWMR's, unless plans are submitted to the Department for appropriate additional measures to ensure an equivalent level of protection to human health and environment, which may include, but not necessarily be limited to:

(1) Groundwater Monitoring;

(2) Installation of recovery wells; and

(3) Development of a contingent corrective action plan.

d. A dedicated buffer zone as required under paragraph 1.a. of this section shall meet the following criteria:

(1) Shall consist of an area of land between the unit and the facility property boundary, that is owned by the owner or operator and serves as a separation distance between the unit and the facility property boundary and must remain accessible for corrective action as necessary. The buffer zone shall not be used for the treatment, storage or disposal of hazardous waste;

(2) Shall serve as a buffer zone for as long as hazardous constituents remain in the unit; and

(3) Shall be recorded as a notation on the facility property deed as a dedicated portion of the facility property for the sole purpose for which it is intended as specified under paragraphs d.(1) and d.(2) of this section.

2. Setbacks

a. For new and expanding units, the owner or operator shall meet the following setback distances at the time of permit application to the Department.

(1) No land-based or non-land-based unit shall be located within a minimum of two thousand feet of any existing church, school, hospital, or any other structure which is routinely occupied by the same person or persons more than twelve hours per day or by the same person or persons under the age of eighteen for more than two hours per day, except those owned by the applicant.

(2) A land-based unit must not be located within a minimum of one thousand feet in the downgradient direction, a minimum of fifteen hundred feet in the sidegradient direction and at any distance upgradient of any well used as a source of water for human or animal consumption and/or bathing or irrigation that is in a hydrologic unit, potentially impacted by the unit. When evaluating this criteria, consideration must be given to the existing and potential use of groundwater. Exceptions to this requirement may be granted if the petitioner can demonstrate to the satisfaction of the Department that the hydrogeologic conditions below the site provide protection to the aquifer in use.

b. Existing land-based and non-land-based units that cannot meet a required setback distance under paragraph a. of this section shall submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR, unless they perform a risk assessment, as approved by the Department, that demonstrates public health and the environment will be adequately protected.

F. Transportation and preparedness:

1. Transportation; new and expanding land-based and non-land-based units shall be prohibited and existing land-based and non-land-based units shall submit to the Department an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's unless the transportation corridors will minimize the potential for and effects of hazardous spills and accidents in populated communities by demonstrating the following:

a. Access to sites by surface and water transportation modes shall be by roads, rails and water ways with the capacity to accept the demands created by the facility.

b. The facility must be located such that when conveyed on roadways, hazardous waste will be transported on interstate, state, or county highways or other roads which are well maintained, well constructed, free of obstructions and with a high degree of visibility. No hazardous waste shall be transported on roads where weight restrictions for the road or any bridge on the road will be exceeded in the selected route of travel.

c. The facility must be located such that an existing and acceptable alternate route is available if access by the primary transportation corridor is blocked.

2. Preparedness

a. No unit shall be located at a facility where the owner or operator cannot reach an agreement with the Local Emergency Planning Committee (LEPC) for appropriate emergency services unless the owner or operator: (1) documents the refusal of the LEPC to enter into such agreements; and (2) makes appropriate arrangements with the local emergency service authorities such as fire, police, hospitals, and local contractors.

b. The Department reserves the right to require more than minimum requirements for the purpose of protecting public health and the environment, and reserves the right to deny siting approval if adequate emergency preparedness requirements are not provided either through agreements or by the applicant.

c. Owners or operators of existing units which cannot demonstrate to the satisfaction of the Department compliance with paragraphs a. and b. of this section must submit an amended closure plan and close in accordance with the procedures specified in R.61-79.264 Subpart G of the SCHWMR's.

V. Certification; the information submitted in compliance with this regulation shall be prepared by or under the direct supervision of a professional engineer or geologist as required in the 1976 Code of Laws of South Carolina as amended, Title 40. Chapters 21 and 77.

VI. Severability; should any section, paragraph, sentence, clause or phrase of this regulation be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby.

APPENDIX F: BERKELEY COUNTY
SPECIAL AREA PERMIT

10

Special Area Overlay Districts

10.1. Areas Surrounding Airports

10.1.1. Intent and Findings

With reference to the Berkeley County Airport - Moncks Corner and to such other airports as County Council may designate, it is the intent of County Council to enact such restrictions as are necessary to eliminate and prevent the creation of hazards to air navigation.

Specifically, County Council finds that the creation or establishment of an obstruction has the potential for endangering the lives and property of users of said airport(s) and property or occupants of land in its vicinity; that an obstruction may reduce the size of areas available for the landing, takeoff and maneuvering of aircraft, thus tending to destroy or impair the utility of said airport(s), and the public investment therein. Council thus declares:

- A. That the creation or establishment of an obstruction has the potential of being a public nuisance and may injure the region served by said airport(s);
- B. That it is necessary in the interest of the public health, safety and general welfare that the creation or establishment of obstructions that are a hazard to air navigation be prevented;
- C. That the prevention of these obstructions should be accomplished to the extent legally possible by the exercise of the police power without compensation; and
- D. That the prevention of the creation or establishment of hazards to air navigation, the elimination, removal, alteration or mitigation of hazards to air navigation, or the marking and lighting of obstructions are public purposes for which the County may raise and expend public funds and acquire land or interests in land.

Based upon these findings, the following restrictions shall apply to the use of land in the areas surrounding airports, as specified in the following paragraphs.

10.1.2. Definitions

As used in this Section, unless the context otherwise requires, the following definitions apply:

- A. **Airport Hazard.** Any structure or object of natural growth located on or in the vicinity of a public airport, or any use of land near such airport, which obstructs the airspace required for the flight of aircraft in landing or takeoff at such airport or is otherwise hazardous to such landing or takeoff of aircraft.
- B. **Approach Surface.** A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Section 10.1.4. In plan, the perimeter of the approach surface coincides with the perimeter of the approach zone.
- C. **Approach, Transitional, Horizontal, and Conical Zones.** These zones apply to the area under the approach, transitional, horizontal, and conical surfaces defined on the Airport Restriction Zones Map.
- D. **Conical Surface.** A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.
- E. **Hazard to Air Navigation.** An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

- F. **Height.** For the purpose of determining the height limits in all zones set forth in this Section, the datum shall be mean sea level elevation unless otherwise specified.
- G. **Horizontal Surface.** A horizontal plane 150 feet above the established airport elevation, the perimeter of which in plan, coincides with the perimeter of the horizontal zone.
- H. **Larger than Utility Runway.** A runway that is constructed for and intended to be used by propeller driven or jet powered aircraft of greater than 12,500 pounds maximum gross weight.
- I. **Non-Precision Instrument Runway.** A runway having an existing or planned instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned.
- J. **Obstruction.** Any structure, growth, or other object, including a mobile object that exceeds a limiting height set forth in this Ordinance.
- K. **Precision Instrument Runway.** A runway having an existing or planned instrument approach procedure utilizing an Instrument Landing System (ILS) or a Precision Approach Radar (PAR) providing horizontal and vertical guidance. It also means a runway for which a precision approach system is planned and is so indicated on an approved airport layout plan or any other planning document.
- L. **Primary Surface.** A surface longitudinally centered on a runway. When the runway has a specifically prepared hard surface, the primary surface extends 200 feet beyond each end of that runway. The width of the primary surface is 1,000 feet. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.
- M. **Runway.** A defined area on an airport prepared for landing and takeoff of aircraft along its length.
- N. **Transitional Surfaces.** These surfaces extend outward at 90-degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional surfaces for those portions of the precision approach surfaces, which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at 90-degree angles to the extended runway centerline.
- O. **Tree.** Any object of natural growth usually depicted as a tall, woody plant.
- P. **Visual Runway.** A runway intended solely for the operation of aircraft using visual approach procedures.

10.1.3. Creation of Airport Restriction Zones

The following zones are established and defined as follows:

- A. **Precision Instrument Runway Approach Zone.**
The inner edge of this approach zone coincides with the width of the primary surface and is 1,000 feet wide. The approach zone expands outward uniformly to a width of 16,000 feet at a horizontal distance of 50,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.
- B. **Runway Larger Than Utility With a Visibility Greater Than 3/4 Mile Nonprecision Instrument Approach Zone.**
The inner edge of this approach zone coincides with the width of the primary surface and is 1,000 feet wide. The approach zone expands outward uniformly to a width of 4,000 feet at a horizontal distance of 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

C. **Transitional Zone.**

These zones are hereby established as the area beneath the transitional surfaces. These surfaces extend outward and upward beginning 500 feet each side of the runway centerline at a slope of 7:1 to the primary surface. The runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional zones for those portions of the precision approach zones which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach zones and at 90 degree angles to the extended runway centerline.

D. **Horizontal Zone.**

The Horizontal Zone is established by swinging arcs of 10,000 feet radii for all runways larger than utility from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The Horizontal Zone does not include the Approach and Transitional Zones.

E. **Conical Zone.**

The Conical Zone is established as the area that commences at the periphery of the Horizontal Zone and extends outward there from a horizontal distance of 4,000 feet at a slope of 20:1. The conical zone does not include the precision instrument approach zones and the transitional zones.

For the Berkeley County Airport - Moncks Corner, and for such other airports as County Council may designate, such zones are shown on an Airport Restriction Zones Map, which is incorporated into and made a part of this Ordinance.

10.1.4. **Use Restrictions**

- A. **Height Restrictions.** Maximum allowable heights for structures and trees are established for each Airport Restriction Zone. Notwithstanding other height limitations contained in this Ordinance, no structure or tree situated within an Airport Restriction Zone shall exceed the maximum allowable height established for said Zone, except as provided for in Section 10.1.5. Where an area is covered by more than one (1) height limitation, the more restrictive limitation shall prevail.

The maximum allowable heights for each Zone are as follows:

1. Precision Instrument Runway Approach Zone. Beginning at the (ground) elevation of the primary surface, the maximum height increased one (1) foot upward for each fifty (50) feet outward to a horizontal distance of 10,000 feet along the extended runway centerline; thence increases one (1) foot upward for each forty (40) feet outward to an additional horizontal distance of 40,000 feet along the extended runway centerline.
2. Runway Larger Than Utility With a Visibility Greater Than 3/4 Mile Nonprecision Instrument Approach Zone. Beginning at the (ground) elevation of the primary surface, the maximum height increases one (1) foot upward for each thirty-four (34) feet outward to a horizontal distance of 10,000 feet along the extended runway centerline.
3. Transitional Zone. Beginning at the (ground) elevation of the sides of the primary and approach surfaces, the maximum height increases one (1) foot upward for each seven (7) feet outward, to a maximum of 150 feet above the airport elevation. In addition to the foregoing, the maximum height increases one (1) foot for each seven (7) feet outward at the sides of and the same elevation as the approach surface, and extending to where they intersect the conical surface. Where the precision instrument runway approach zone projects beyond the conical zone, the maximum height increases one (1) foot for each seven (7) feet outward at the sides of and the same elevation as the approach surface and extending a horizontal distance of 5,000 feet measured at 90 degree angles to the extended runway centerline from the edge of the approach surface.

4. Horizontal Zone. The maximum height is 150 feet above the airport elevation.
5. Conical Zone. Beginning at 150 feet above the airport elevation, the maximum height increases one (1) foot upward for each twenty (20) feet outward, to a maximum of 350 feet above the airport elevation.

B. **Prohibited Activities.** No use may be made of land or water within the Airport Restriction Zones, and no activity may be engaged in, that would:

1. Create electrical interference with navigational signals or radio communication between the airport and aircraft;
2. Make it difficult for pilots to distinguish between airport lights and other lights;
3. Result in glare in the eyes of pilots using the airport;
4. Impair visibility in the vicinity of the airport;
5. Create bird strike hazards; or
6. Interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.

10.1.5. Marking and Lighting

Notwithstanding exceptions or variances to the requirements of this section, the owner of any structure or tree or non-conforming structure or tree that exceeds the maximum height limitations established in Section 10.1.3(A) may be required by Berkeley County to install, operate and maintain such markings and lights as the County may deem necessary to indicate to operators of aircraft the presence of such obstruction in the vicinity of the airport.

10.1.6. Exceptions and Variances

Notwithstanding the height limitations established in Section 10.1.3(A), a structure of 35 feet or less in height may be constructed and occupied, if before a Certificate of Occupancy is issued, the Zoning Administrator certifies that all necessary markings and lighting have been installed, pursuant to Section 10.1.4, such that the structure will not constitute a hazard to air navigation.

Except as provided in paragraph one (1) above, as is required for the construction of any structure that would exceed the maximum height limitations established in Section 10.1.3(A), or for any activity prohibited in Section 10.1.3(B). Any person desiring a variance from these restrictions shall apply in writing to the Board of Zoning Appeals under the provisions of Article 21 (Board of Zoning Appeals) of this Ordinance. The application for a variance shall be accompanied by a determination from the Federal Aviation Administration as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable air space. Such variance shall be allowed where it is duly found that a literal application or enforcement of the regulations will result in unnecessary hardship and that the relief granted will not be contrary to the public interest, will not create a hazard to air navigation, will do substantial justice, and will be in accordance with the spirit of this Ordinance. Additionally, no application for Variance to the requirements of this Ordinance may be considered by the Board of Appeals unless a copy of the application has been furnished to the Berkeley County Aeronautics Commission for advice as to the aeronautical effects of the variance. If the Aeronautics Commission does not respond to the application within 15 days of receipt, the Board of Appeals may act on its own to grant or deny said application.

10.2. Developments Affecting Properties Listed on the National Register of Historic Places or Locally Designated Sites

10.2.1. Statements of Intent

Berkeley County is fortunate to contain a number of structures and properties that have been listed on the National Register of Historic Places (hereafter "Register Listings"). This listing is established and maintained by the United States Department of the Interior. These Register Listings are hereby found to include scenic and culturally important resources of the county, and are found to continue to contribute to the cultural and educational welfare of the citizens of Berkeley County. It is the intent of this Ordinance to preserve the integrity of these Register Listings, the scenic and cultural attributes associated with these Register Listings, and the use and enjoyment of these Register Listings by the citizens of Berkeley County and the public at large, as well as any additional properties or structures which may be so designated in the future as Register Listings or as Local Designated sites.

10.2.2. Permits Required

A Special Area Permit shall be required for any development unless specifically exempted. Exemptions include single family residential uses (including single family detached, modular housing and manufactured housing per zoning classification of the parcel) when such use does not exceed one unit per parcel on lots of record as of the date of this ordinance; and for only one lot subdivision of a parcel and the Zoning Administrator determines, in conjunction with the application for a zoning and building permit that the requested change would not have a clear and substantial detrimental impact on the character of the historic district.

Special Area Permits shall be required when:

- A. The development* would physically alter a Register Listing or Local Designated site situated in Berkeley County;
- B. That, by the creation of vibration, air emissions, noise or odor, or when the bulk and/or placement of the structure would in all likelihood produce physical alterations in such Register Listing or Local Designated site, or substantially impair the use and enjoyment of such Register Listing or Local Designated site by the citizens of Berkeley County; or
- C. For Register Listings or Local Designated site situated along the main channel of the East and West branches of the Cooper River as well as the main channel of the Wando and Santee Rivers, which would be visible from ground level of the Register Listing, up or down the riverscape, up to a distance of two thousand six hundred forty (2,640) feet from such Register Listing or Local Designated site.

* For purposes of the Section (10.2), **development** shall mean any structure to be utilized commercially or industrially, or any group of structures that results in a residential subdivision in which lots are created from a large tract(s) on which single family homes (detached, modular, and manufactures per zoning classification regulations) are planned for construction.

10.2.3. Standards

- A. For developments for which a Special Area Permit is required under Section 10.2.2(A) or (B), the permit application shall specify the proposed development, the activities that would affect, or would in all likelihood affect, the Register Listing or Local Designated site, and the anticipated scope and magnitude of such affects. The applicant shall demonstrate that the best available development and management practices will be used to minimize adverse impacts on the Register Listing, and shall

provide detailed specifications for such practices and the manner in which they will be incorporated into the development. Such best available development and management practices shall be added to the other requirements of this Ordinance for the development in question.

- B. For developments for which a Special Area Permit is required under Section 10.2.2(C), the following standards shall be added to or, where more stringent, shall replace, the other requirements of this Ordinance:
1. **Height Limitation.** No structure shall be more than three stories in height, or taller than the top of the surrounding tree canopy, whichever is lower.
 2. **Removal of Trees.** Within 100 feet of the edge of the river, or of wetland areas abutting the river, no trees shall be removed except in accordance with a Landscape Plan, prepared by a registered Landscape Architect, submitted with the Special Area Permit application and approved by the Zoning Administrator. The Landscape Plan shall:
 - a. Provide for the maintenance of a tree buffer that screens the development from the Register Listing or Local Designated site;
 - b. Provide for the retention of natural vegetation and topographical features to the maximum extent practicable;
 - c. Provide for the planting and maintenance of additional vegetative buffers as needed to effectively screen the development from the Register Listing or Local Designated site; and
 - d. Comply with Article 13: Environmental Performance Standards of this Ordinance.
 - e. A Landscape Plan shall not be required for access paths less than twelve feet in width that provide ingress to and egress from the river or wetland area.

10.2.4. **Permit Procedures**

- A. For developments for which permits are required under this section, no site alteration, including, but not limited to, the cutting of trees, grading and the laying of roads and associated stormwater drainage shall be allowed prior to the issuance of a special area permit.
- B. Whenever the Zoning Administrator receives a permit application under this that involves a development affecting a Register Listing or Local Designated site, he shall notify the owner of said Register Listing or Local Designated site and shall provide said owner the opportunity to submit comments on the proposed development.
- C. **Pre-Development Review.** To prevent harmful impacts from occurring, and to assist developers in meeting the requirements of this ordinance, a Pre-Development review of specified types of development will be required before any land altering activity occurs.
1. **Master Plan.** Where a development is planned to be constructed in stages, and with two or more categories of Use Groups, the developer shall submit to the Zoning Administrator a Master Plan for the entire development. The Master Plan will:
 - a. Show the approximate locations of all major streets, major drainage outfalls and proposed types of land use;
 - b. Include topographic and boundary maps;
 - c. Include an estimate of traffic generation that will be associated with the development at buildout;
 - d. For residential developments, include an estimate of the increase in public school enrollment that will be generated by the development;
 - e. Include a description of the proposed water and sewerage systems to serve the development; and
 - f. Describe proposed onsite stormwater retention or detention systems, in accordance with guidelines issued by the County Engineer and approved by County Council.

2. For purposes of this section, the placement of major infrastructure services for the entire, or substantial portions or, the development, followed by the intensive development of only a portion of the development, will be construed to constitute a development constructed in stages. The Zoning Administrator will review the Master Plan and will approve, approve with conditions, or deny approval of the Master Plan. Approval of a Master Plan will vest the developer and his successors with the right to develop the complete development in a timely manner as approved by the Zoning Administrator in accordance with the Master Plan, as conditioned; provided that:
 - a. Master Plan approval in no way relieves the developer of the requirement to submit a Development Plan for each stage of the development, as required in this section;
 - b. Any significant differences, including differences in uses, between an approved Master Plan and a submitted Development Plan will void the approval of the Master Plan; in such event, the Development Plan will be reviewed independently of other submissions, unless the developer submits a revised Master Plan for review;
 - c. Master Plan approval shall not be interpreted in any way that would cause any of the standards contained in this ordinance to be exceeded or violated; and
 - d. In instances where the Zoning Administrator can show that drainage or infrastructure systems will be significantly damaged if subsequent stages are developed in accordance with the Master Plan, the Zoning Administrator may re-open consideration of the Master Plan, and the Master Plan may be modified to prevent such damage from occurring, notwithstanding any vested rights the developer may have under this section.

The Zoning Administrator must review and act upon a Master Plan within 90 days of submission of a complete Plan that contains all of the elements required in this section. The Zoning Administrator's action shall be communicated to the developer in writing. If a Master Plan is disapproved, the Zoning Administrator must state in writing the reasons for disapproval. The landowner or developer may appeal the Zoning Administrator's action to the Board of Adjustment; such appeal must be filed within fifteen (15) days of the receipt of notice of such action. Any disapproved Master Plan may be resubmitted with changes. Following approval of a Master Plan, Pre-Development review is required for each stage of the development, as outlined in paragraphs (3-7) below.

3. Pre-Development review is required for any development that:
 - a. Will be developed at densities greater than 3 units per net acre, or
 - b. Will have greater than 10 dwellings units at buildout.
 - c. Pre-Development review consists of two steps:
 - i. Submission of conceptual plans (which are voluntary and advisory, only), and
 - ii. Submission and review of a Development Plan, as outlined in paragraphs (4) - (7) below.
 - d. Where development is conducted in stages, in accordance with a Master Plan as outlined in paragraphs (1-2) above, Pre-Development review may be conducted separately for each stage of the development, or may be conducted for some or all stages of the development together, as the developer or landowner chooses.
4. Conceptual Plan. A developer or landowner may choose to submit a Conceptual Plan of his proposed development to the Zoning Administrator for preliminary review. This step is recommended in order to facilitate development and submission of sound and complete Development Plans that meet the requirements of the Ordinance. However, this step is voluntary on the part of the landowner or developer, and the lack of a Conceptual Plan shall have no effect on the review of

a Development Plan. The Zoning Administrator will review and critique submitted Conceptual Plans within 45 days of submission, and shall communicate to the developer a written, advisory opinion outlining the elements of the Conceptual Plan which, as submitted, would comply with this ordinance, fail to comply with this ordinance, or fail to provide sufficient information on which to formulate an opinion regarding compliance. Such opinions in no way relieve the developer or landowner of the requirements recording the submission of Development Plans, as specified below.

5. Development Plan. For developments subject to the pre-development review requirements, prior to the commencement of development, including any land altering activity, the landowner or developer must submit to the Zoning Administrator a Development Plan that:
 - a. Identifies and shows the locations of the environmental and natural resources contained on the property. For purposes of the Development Plan, these resources shall include rivers, streams, creeks and other watercourses; wetlands, including marshes, swamps and natural retention areas; lakes and ponds; habitat of rare or endangered species (both animal and plant) if such information is reasonably available; climax forests; and any other unusual or noteworthy natural feature(s) located on the property;
 - b. Identifies and shows the location of noteworthy cultural and archaeological resources if any contained on the property;
 - c. Shows proposed streets and lot configurations and includes an estimate of traffic to be generated by the development;
 - d. Includes a description of the types and densities of structures to be built on the property, and shows proposed lot lines in residential areas;
 - e. Shows and describes all proposed community recreation areas to be located on or adjacent to the property;
 - f. Shows proposed new school sites, if any;
 - g. Shows all lands proposed for dedication to the County;
 - h. Contains a drainage plan prepared by a certified (Professional) Engineer, that meets the requirements of the Berkeley County Subdivision Ordinance and any drainage ordinances that may be adopted by County Council; and
 - i. Describes proposed water and sewerage systems, including an estimate of flows.

6. The Zoning Administrator must review and act upon a Development Plan within thirty (30) days of submission. The Zoning Administrator may approve, approve with conditions, or disapprove any submitted Development Plan. The Zoning Administrator's action shall be communicated to the developer in writing. If a Development Plan is disapproved, the Zoning Administrator must state in writing the reasons for the disapproval. The landowner or developer may appeal the Zoning Administrator's action to the Zoning Board of Appeals; such appeal must be filed within thirty (30) days of the receipt of notice of such action. Any disapproved Development Plan may be resubmitted with changes. If the Zoning Administrator fails to act upon a Development Plan within thirty (30) days of submission, such Development Plan shall be deemed approved.
 - a. The Zoning Administrator shall develop a set of guidelines and criteria to be used in evaluating Development Plans. These guidelines and criteria shall be presented to County Council for approval, and, once approved, shall be used as the basis for Development Plan review, including determinations of development conditions and plan disapproval.
 - b. For purposes of this section, a Development Plan will be deemed to be submitted when a complete plan, containing all of the elements required for the type of development in question, has been delivered to the office of the Zoning Administrator. The Zoning Administrator shall return all incomplete Development Plan submissions to the proper parties, with a written notation of the elements that are missing.

7. Developments must be constructed and developed in accordance with the provisions and conditions included in the approved Development Plan.
8. Changes in an approved Development Plan may be made in the following ways:
- a. For minor changes or modifications, the landowner or developer may submit to the Zoning Administrator a written statement of the change, with drawings and design specifications as appropriate, together with a request for expedited review. The Zoning Administrator will act on this request for expedited review within five working days of receipt, and may delegate his review to such on-site inspectors as are provided for under this ordinance. For purposes of this subsection, minor changes or modifications to an approved Development Plan are limited to:
 - i. Reductions in the density per net acre of residential dwelling units on the site; or
 - ii. Increases of less than 2% in the density per net acre of residential dwelling units on the site; or
 - iii. Increases of less than 5% in the area of impervious surface on the site; or
 - iv. For Use Groups 6-23, an increase in floor area of less than 10% above that contained in the approved Development Plan.

For developments using the Bonus Density provision, requests for changes or modifications from an approved Development Plan may not be submitted for expedited review, but must be submitted under the provisions of subparagraph (b) below.

- b. For all other changes or modifications, and for requests for minor changes that are denied by the Zoning Administrator under expedited review as authorized under subparagraph (a) above, requests for changes or modifications to an approved Development Plan must be submitted in accordance with the provisions of paragraph (4) above, and are subject to the same procedural requirements and safeguards as initial Development Plan submissions.

Notwithstanding any of the provisions of this section, in no instance shall a modification to an approved Development Plan cause any of the Standards contained in this ordinance to be exceeded or violated.

10.2.5. Owner Standing

The owner of a structure or property listed on the National Register of Historic Places or a Local Designated site that may be affected by a development or activity for which a permit is required under this section shall have standing to:

- A. Petition the Zoning Administrator or the circuit court for Berkeley County for the cessation of any activity for which a Special Area Permit is required but has not been granted under this section; and
- B. Appeal the granting of a Special Area Permit, or the conditions contained in such Permit, to the Zoning Board of Appeals under Article 21 of this Ordinance, and shall be construed to be a person having a substantial interest in the decision of the Board of Appeals for purposes of Section 21.

10.2.6. *Maps of Register Listing Boundaries*

The Zoning Administrator shall maintain a file for each area within Berkeley County that is designated a Register Listing. Such file shall include a description of the Register Listing, copies of the designation documents and a map showing the Register Listing.

As of 2001 the following National Register Sites have been designated in Berkeley County:

- A. **Mulberry Plantation**, off U.S. Hwy 52, Moncks Corner vicinity
- B. **St. James Church**, Goose Creek, Goose Creek vicinity
- C. **St. Stephen's Episcopal Church**, S.C. Hwy 45, St. Stephen
- D. **Pompion Hill Chapel**, near junction of S.C. Hwys 41 and 402, Huger
- E. **Middleburg Plantation**, on the Cooper River, Huger vicinity
- F. **Medway**, off U.S. Hwy 52, Mount Holly vicinity
- G. **Strawberry Chapel and Childsbury Town Site**, S.C. Sec. Rd 44, Mount Holly vicinity
- H. **Calais Milestones**, S.C. Sec. Rds 98 and 44, Cainhoy vicinity
- I. **Lewisfield Plantation**, U.S. Hwy 52, Moncks Corner vicinity
- J. **White Church** (St. Thomas & St. Dennis Parish Episcopal Church; Brick Church), S.C. Sec. Rd 98, Cainhoy vicinity
- K. **Loch Dhu**, off S.C. Hwy 6, Cross vicinity
- L. **Lawson's Pond Plantation**, off S.C. Hwy 6, Cross vicinity
- M. **Biggin Church Ruins** (St. John's Parish Church), S.C. Hwy 402, Moncks Corner vicinity
- N. **Taveau Church**, S.C. Sec. Rd 44, Cordesville vicinity
- O. **Otranto Plantation**, 18 Basilica Ave., Hanahan vicinity
- P. **Keller Site**, 38BK83, St. Stephen vicinity
- Q. **Richmond Plantation** (Girl Scout Plantation), S.C. Sec. Rd 402, Cordesville vicinity
- R. **Cainhoy Historic District**, Cainhoy vicinity
- S. **Santee Canal**, Moncks Corner to Pineville vicinities
- T. **Pinopolis Historic District North**, Pinopolis
- U. **Pinopolis Historic District South**, Pinopolis
- V. **William Robertson House**, S.C. Sec. Rd 5, Pinopolis
- W. **Quinby Plantation House** – Halidon Hill Plantation, Huger vicinity
- X. **Otranto Plantation Indigo Vats**, S.C. Sec. Rd 503, Goose Creek vicinity
- Y. **Pineville Historic District**, Pineville

The Zoning Administrator will keep as possible a current and official list of National Register Sites that will serve to determine whether a Special Area Permit is required.

10.2.7. Local Designated Sites

A. **Criteria for Local Designation.** Local designation of historic sites serves to designate historic properties on the basis of local criteria and local procedures. This designation shall serve to protect the county's significant properties and areas through local recognition and community planning. Local designation does not qualify a property eligible for state or federal preservation grants.

Berkeley County Council shall review the local inventory of historic properties and make review sites and create a local historic designation list based the following criteria:

1. Has significant inherent character, interest, or value as part of the development or heritage of the local community, county, state, or nation; or
2. Is the site of an event significant in history; or
3. Is associated with a person or persons who contributed significantly to the culture and development of the local community, county, state, or nation; or
4. Exemplifies the cultural, political, economic, social, ethnic, or historical heritage of the local community, county, state, or nation; or
5. Individually, or as a collection of resources, embodies distinguishing characteristics of a type, style, period, or specimen in architecture or engineering; or
6. Is the work of a designer whose work has influenced significantly the development of the local community, county, state, nation; or
7. Contains elements of design, detail, materials, or craftsmanship which represent a significant innovation; or
8. Is part of or related to a square or other distinctive element of community planning; or
9. Represents an established and familiar visual feature of the neighborhood or community; or
10. Has yielded, or may be likely to yield, information important in pre-history or history.

B. **Owner Notification.** Owners of properties proposed to be designated historic shall be notified in writing thirty days (30) prior to consideration by County Council. Owners may appear before County Council to voice approval or opposition to such designation.

C. **Identification of Locally Designated Sites.** The Zoning Administrator will keep a current and official list of Locally Designated Sites that will serve to determine whether a Special Area Permit is required.

D. **Opposition to Designation.** Any property owner may object to the decision by County Council to designate his property as historic by filing suit against Berkeley County before the Courts of the State of South Carolina.

10.3. Scenic Roads

(Reserved)

ART. 10: SPECIAL AREAS

**APPENDIX G: STATE LAWS CONCERNING
CEMETERIES (CHAPTER 43, TITLE 27)**

TITLE 27. PROPERTY AND CONVEYANCES
CHAPTER 43. REMOVAL OF ABANDONED CEMETERIES
SECTION 27-43-10 . Notice of proposed removal; due care required. [SC ST SEC 27-43-10]

A person who owns land on which is situated an abandoned cemetery or burying ground may remove graves in the cemetery or ground to a suitable plot in another cemetery or suitable location if:

(1) It is necessary and expedient in the opinion of the governing body of the county or municipality in which the cemetery or burying ground is situated to remove the graves. The governing body shall consider objections to removal pursuant to the notice under item (2) or otherwise before it approves removal.

(2) Thirty days' notice of removal is given to the relatives of the deceased persons buried in the graves, if they are known. If no relatives are known, thirty days' notice must be published in a newspaper of general circulation in the county where the property lies. If no newspaper is published in the county, notice must be posted in three prominent places in the county, one of which must be the courthouse door.

(3) Due care is taken to protect tombstones and replace them properly, so as to leave the graves in as good condition as before removal.

SECTION 27-43-20 . Removal to plot agreeable to governing body and relatives; board may determine suitable plot in case of disagreement. [SC ST SEC 27-43-20]

The plot to which the graves are removed shall be one which is mutually agreeable between the governing body of the county or municipality and the relatives of the deceased persons. If a suitable plot cannot be agreed upon between the parties concerned the matter shall be finally determined by a board of three members which shall be convened within fifteen days after final disagreement on the new location of the plot. The board shall be appointed as follows: One member shall be appointed by the county or municipality, one member shall be appointed by the relatives, and a third member shall be selected by the two. The decision of the board shall be final.

SECTION 27-43-30 . Supervision of removal work; expenses. [SC ST SEC 27-43-30]

All work connected with the removal of the graves shall be done under the supervision of the governing body of the county, who shall employ a funeral director licensed by this State. All expenses incurred in the operation shall be borne by the person seeking removal of the graves.

SECTION 27-43-40 . Evidence of abandonment. [SC ST SEC 27-43-40]

The conveyance of the land upon which the cemetery or burying ground is situated without reservation of the cemetery or burying ground shall be evidence of abandonment for the purposes of this chapter.

APPENDIX H: THE SOUTH CAROLINA
UNDERWATER ANTIQUITIES ACT OF
1991 (SC CODE OF LAWS, SECTION 54-7-
610 ET SEQ.)

ARTICLE 5. THE SOUTH CAROLINA UNDERWATER ANTIQUITIES ACT OF 1991
SECTION 54-7-610 . Short title. [SC ST SEC 54-7-610]

This article may be cited as the South Carolina Underwater Antiquities Act of 1991.

SECTION 54-7-620 . Definitions. [SC ST SEC 54-7-620]

As used in this article:

- (1) "Artifact", "artifactual item", or "artifactual material" means any object or assemblage of objects found in an archaeological context which yields or is likely to yield information of significance to the scientific study of human prehistory, history, or culture, and which have remained unclaimed for more than fifty years.
- (2) "Artifact recovery" means the recovery of artifactual material by hand or through excavation.
- (3) "Beneath or substantially beneath" means permanently or periodically covered, in whole or in part, by the territorial waters of the State.
- (4) "Commercial applicant" means an applicant for a license under this article for purposes other than those of a noncommercial applicant, such as commercial salvage or income-producing purposes.
- (5) "Complete paleontological specimen" means a fossil which is more than eighty percent intact and has recognizable diagnostic features for identification.
- (6) "Data" means any information related to the site of submerged archaeological historic property or submerged paleontological property which includes, without limitation, artifactual and/or paleontological material, remote sensing survey charts, magnetic tape records of positions, site maps, feature plans, photographs, measurements, and historical documentation.
- (7) "Data collection" means the accumulation of data through methods which do not include excavation. "Data collection" includes the collection of artifactual and/or paleontological material that is exposed or resting on, but not embedded in, submerged lands.
- (8) Reserved.
- (9) "Data recovery" means a systematic study carried out in accordance with a research plan which may include data collection, excavation, and artifact or fossil recovery.
- (10) "Day" means a twenty-four hour period beginning at 12:00 midnight.
- (11) "Debris field" means the area in which artifactual or paleontological materials associated with a site are found.
- (12) "Director" means the Director of the Institute or a designee of the director.
- (13) "Embedded" means firmly affixed in submerged lands such that the use of tools of excavation are required in order to move the bottom sediments to gain access to the submerged archaeological historic property or paleontological materials or any part of them.
- (14) "Excavation" means the process of moving, removing, or disturbing bottom sediments to expose submerged archaeological historic property or submerged paleontological materials.
- (15) "Field archaeologist" means a professional archaeologist selected by the licensee and approved by the institute to supervise operations under a license. The field archaeologist must hold an advanced academic degree with a specialization in underwater, nautical, or maritime archaeology and meet or exceed the

Standards of the Secretary of the Interior (48 F.R. 44738-44739) and act pursuant to the criteria set forth by the South Carolina State Historic Preservation Office Guidelines and Standards for Archaeological Investigations.

(16) "Field paleontologist" means a paleontologist selected by the licensee and approved by the museum to supervise operations under a license.

(17) "Historic property" means a district, site, building, structure, or object significant in the prehistory, history, upland and underwater archaeology, architecture, engineering, and culture of the State, including artifacts, records, and remains related to the district, site, building, structure, or object.

(18) "Immediate environment" means that area surrounding a submerged archaeological historic property or submerged paleontological site which, if disturbed, could result in substantive injury to the property, including, without limitation, the debris field.

(19) "Institute" means the South Carolina Institute of Archaeology and Anthropology.

(20) "Intensive survey" means a field and archival investigation of an area designed to gather and identify fully information about submerged archaeological historic properties sufficient to evaluate them in relation to National Register criteria of significance within specific historical contexts. It may also mean a field and archival investigation of an area designed to gather and identify fully information about submerged paleontological materials sufficient to evaluate them for geologic time period and species identification. Intensive survey may include data collection, test excavation, data recovery, and specimen recovery on a limited basis.

(21) "Licensee" means any person or entity authorized to perform certain recovery operations from a submerged archaeological historic property or submerged paleontological property under the provisions of this article by the South Carolina Institute of Archaeology and Anthropology. It is not a proof of qualification to skin or scuba dive nor that a person is qualified to skin or scuba dive.

(22) "Monitoring archaeologist" means an underwater archaeologist selected by the institute for the purpose of monitoring work activity under a license issued by the institute.

(23) "Monitoring paleontologist" means a paleontologist or Natural History Curator selected by the museum commission for the purpose of monitoring work activity under a license issued by the institute.

(24) "Museum Commission", "museum", "commission", and "State Museum" means the South Carolina Museum Commission authorized by this article as custodians of paleontological materials.

(25) "National Register" means the National Register of Historic Places maintained by the Secretary of the United States Department of the Interior.

(26) "Navigable waters" means all waters belonging to the State which are navigable in fact or were navigable in the past. The term includes rivers and streams in which the tide ebbs and flows.

(27) "Noncommercial applicant" means a person seeking a license for the purpose of gathering scientific, historical, or architectural data for either:

(a) public exhibition, interpretation, or preservation and not for the purpose of producing income, profit, or gain; or

(b) mitigation of adverse effects of a proposed undertaking on submerged archaeological historic property or submerged paleontological property.

(28) "Object" means a material thing produced or resulting from human activity which has functional, aesthetic, cultural, historical, or scientific value and which includes artifactual material.

(29) "Paleontological materials", "materials", "specimen", "fossil", "fossil materials", or "paleontology materials" means any object or assemblage of objects found in a paleontological context including, but not limited to, plant and animal fossils such as bones, teeth, natural casts, molds, impressions, and other remains of prehistoric fauna which yield or are likely to yield information of significance to the scientific study or educational potential of the past. Faunal means fossilized plant and animal remains from past geologic periods including, but not limited to, molds, casts, bones, and teeth.

(30) "Paleontological property" means paleontological material or any site which contains paleontological material.

(31) "Paleontological recovery" or "fossil recovery" means the recovery of paleontological materials by hand or through excavation.

(32) "Person" means an individual, partnership, corporation, association, organized group of persons, or any other legal entity.

(33) "Preservation" means the identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance, and reconstruction of a submerged archaeological historic property or a submerged paleontological property.

(34) "Primary scientific value" means any submerged archaeological historic property or submerged paleontological property which:

(a) yields or may yield information of great importance or significance to state, regional, national or international history or prehistory. Significance may be judged by the potential of the property to provide information, its physical condition, the research questions it might answer, its educational or exhibit value, or its relationship to known archaeological and historical records and future research needs; or

(b) is included in, or has been determined, or may be eligible for inclusion in the National Register of Historic Places.

(35) "Reconnaissance survey" means a limited archival and field investigation, designed and accomplished in sufficient detail to make generalizations about the type, distribution, and value of an area's submerged archaeological historic properties or submerged paleontological sites, which may include data collection but may not include excavation, data recovery, or artifact recovery.

(36) "Recreational value" means value related to an activity which the public engages in, or may engage in, for recreation or sport, including, but not limited to, scuba diving and fishing.

(37) "Site" means:

(a) the location of an event, a prehistoric or historic occupation or activity, or a building or structure including a shipwreck, whether standing, ruined, or vanished, and its debris field where the location itself maintains historical or archaeological value regardless of the value of any existing structure;

(b) the location of an accumulation of paleontological material where the location itself maintains paleontological value.

(38) "State" means the State of South Carolina.

(39) "State Underwater Archaeologist" means a person appointed by the Director of the South Carolina Institute of Archaeology and Anthropology who administers this article.

(40) "State Historic Preservation Officer" means the individual who administers the State Historic Preservation Program under the provisions of the National Historic Preservation Act of 1966.

(41) "Structure" means a constructed work made up of interdependent and interrelated parts in a definite pattern of organization.

(42) "Submerged" means beneath or substantially beneath the territorial waters of the State or submerged at mean low tide.

(43) "Submerged archaeological historic property" means any site, vessel, structure, object, or remains which:

(a) yields or is likely to yield information of significance to scientific study of human prehistory, history, or culture; and

(b)(i) is embedded in or on submerged lands and has remained unclaimed for fifty years or longer; or

(ii) is included in, or has been determined, or may be eligible for inclusion in the National Register of Historic Places.

The term includes archaeological material which includes, but is not limited to, abandoned shipwrecks and their contents and individual assemblages of historic or prehistoric artifacts.

(44) "Submerged lands" means lands beneath or substantially beneath the territorial waters of the State or which are submerged at mean low tide.

(45) "Submerged paleontological property" means any object or assemblage of objects found in a paleontological context which yield or are likely to yield information of significance to the scientific study or educational potential of the past faunal diversity, past environments, geologic time, or other paleontological concerns.

(46) "Substantive injury" means any action or influence which causes a change in the archaeological or paleontological context, the structural integrity, or the physical condition of a site as to render it more vulnerable to loss, damage, destruction, or diminution of historic or paleontological value.

(47) "Territorial waters" means the navigable waters of the State, namely, all tidal waters within the boundaries of the State up to, but not above, the line of mean low tide and seaward to a line three geographical miles distant from the coastline of the State measured by reference to mean low tide elevation as defined in the Geneva Convention, Article 11, and such other waters of the State as may be included within the term "lands beneath navigable waters" as defined in the Federal Abandoned Shipwreck Act of 1987.

(48) "Undertaking" means an activity by the institute or South Carolina Museum Commission that would otherwise require a license under this article. "Undertaking" does not include activities which, in the State Underwater Archaeologist's determination, must be conducted within sixty days in order to preserve submerged archaeological historic property or submerged paleontological property that is or may be of primary scientific value or of major archaeological, anthropological, or historic value and threatened with imminent destruction or substantial damage.

SECTION 54-7-630 . Title to all submerged paleontological property and submerged archaeological historic property and artifacts in state; may be conveyed to licensee. [SC ST SEC 54-7-630]

(A) All submerged archaeological historic property and artifacts and all submerged paleontological property located on or recovered from submerged lands over which the State has sovereign control, are declared to be the property of the State.

(B) Title to submerged archaeological historic property and artifacts and all submerged paleontological property, or a portion of the property recovered from submerged lands over which the State has sovereign

control, may be conveyed by the State to a licensee pursuant to a license issued by the institute.

SECTION 54-7-640 . Custodians of submerged archaeological historic property and artifacts, submerged paleontological material, and other things of value. [SC ST SEC 54-7-640]

(A) The custodian of submerged archaeological historic property and artifacts owned by the State or on state submerged lands is the South Carolina Institute of Archaeology and Anthropology. The South Carolina Institute of Archaeology and Anthropology may promulgate regulations as necessary to carry out its duties under this article.

(B) The custodian of all submerged paleontological material is the South Carolina Museum Commission. The institute, after consultation with the South Carolina Museum Commission, may promulgate regulations regarding submerged paleontological property as necessary for this purpose. For the purposes of this article, and where submerged paleontological property is involved, the institute shall consult with the South Carolina State Museum.

(C) The custodian of any other things of value not provided for in this section is the State Budget and Control Board which may promulgate regulations as necessary for this purpose.

SECTION 54-7-650 . Licenses to conduct activities affecting submerged archaeological historic properties or paleontological properties; disposition of recovered property; permission to recover other property. [SC ST SEC 54-7-650]

(A) A person desiring to conduct activities pursuant to this article in the course of which submerged archaeological historic properties or paleontological properties may be removed, displaced, or destroyed shall apply to the institute for a license to conduct the activity. If the institute finds that the granting of the license is in the best interests of the State, it may grant it for the time and under the conditions the institute considers appropriate to this article.

(B) The institute may enter into agreements with licensees for the disposition of recovered submerged archaeological historic property and submerged paleontological property.

(C) The disposition may include division of the recovered property with the licensee.

(D) The division may be in value or in kind, with the institute acting as arbiter of the division in the best interests of the State and giving due consideration to the fair treatment of the licensee. Any agreement entered into by the institute must provide for the licensee to receive reasonable compensation for any recovered submerged archaeological historic property or submerged paleontological property claimed and turned over to the State.

(E) No license is required of the institute or, where submerged paleontological property is involved, the South Carolina Museum Commission, which may conduct any undertakings provided for by this article. All recovered submerged archaeological historic property and submerged paleontological property belong to the State.

(F) Any persons desiring to recover anything of value other than submerged archaeological historic property or submerged paleontological property must obtain permission from the State Budget and Control Board under the terms the board determines.

(G) A person may not knowingly recover, collect, excavate, or disturb a submerged archaeological historic property or submerged paleontological property on submerged lands over which the State has sovereign control without a license from the institute.

(H) The institute shall issue and administer licenses for any activity involving the recovering, collecting, excavation, or disturbance of submerged archaeological historic property and submerged paleontological property on submerged lands over which the State has sovereign control.

SECTION 54-7-660 . No license required for non-disturbing inspection, study, and the like. [SC ST SEC 54-7-660]

A person may inspect, study, explore, photograph, measure, record, conduct a reconnaissance survey, use magnetic or acoustic detection devices, or otherwise use and enjoy a submerged archaeological historic property and/or submerged paleontological property without being required to obtain a license if the use or activity does not:

- (1) involve excavation, destruction, substantive injury, or disturbance of the historic property, a paleontological site, or its immediate environment;
- (2) endanger other persons or property; or
- (3) violate other regulations or provisions of federal, state, or local law or ordinance.

SECTION 54-7-670 . Hobby licenses; reports of hobby divers as to finds; restrictions. [SC ST SEC 54-7-670]

(A) A person desiring to conduct temporary, intermittent, recreational, small scale, noncommercial search and recovery of submerged archaeological historic property or submerged paleontological property shall apply for a hobby license from the institute. Any person collecting from state property such as river banks or beaches below the mean low watermark shall apply for a license.

(B) A person desiring to apply for a hobby license shall submit a completed application on a standard form prescribed by the institute together with a license fee. A license fee of five dollars for residents of this State and ten dollars for nonresidents must be charged for a six-month hobby license. A license fee of eighteen dollars for residents of this State and thirty-six dollars for nonresidents must be charged for a two-year hobby license.

(C) This nonexclusive statewide license may be granted optionally for a six-month or two-year period.

(D) Licenses may be granted to individuals or members of an immediate family.

(E) Hobby license holders may not exercise the privileges of their licenses in waters for which any type of exclusive license has been granted and is in effect or in waters for which such exclusive licenses become effective during the life of that exclusive license.

(F) This section limits the recovery of objects or materials from submerged archaeological historic property and submerged paleontological property under a hobby license to a limited number of objects which can be recovered by hand. All powered mechanical dredging and lifting devices and buoyancy equipment except a personal flotation device of any sort are prohibited including, but not limited to, prop wash, air lift, water dredge, and pneumatically-operated lift bags under the license.

(1) A person with a hobby license may collect from submerged lands of this State a reasonable number of artifactual items and/or complete and fragmented fossil specimens a day that:

- (a) are exposed or resting on the bottom sediments of submerged lands; and
- (b) do not require excavation to recover.

(2) No artifactual or paleontological materials may be recovered from submerged lands of this State unless they can be obtained by hand.

(3) No specimen may be recovered from a fossil specimen with joined or interrelated elements before contacting the museum.

(G)(1) All persons who have collected objects in accordance with Section 54-7-670 shall furnish the institute with a report which is to include a list of the objects and a description of the places from which the objects were recovered. Hobby divers are also encouraged, but not required, to include photographs or drawings of artifacts recovered and rough sketch plans of the site or map of the location with the exception of shipwreck sites covered under item (2) of this subsection. Reports submitted under a two-year hobby license must be filed within ten days following the end of the calendar quarter in which the activities took place. All reports under this license must be filed with the institute prior to submitting application for renewal of a hobby license. The institute will not consider applications for renewal until all outstanding reports have been received.

(2) No more than ten artifacts a day may be recovered from a shipwreck site. Divers may not destroy the integrity of the ship's structure by removing or moving timbers, fittings, fastenings, or machinery. Hobby divers who have recovered any artifacts from a shipwreck site must include in the report both a locational reference to the shipwreck site by locating the site on a topographic or hydrographic chart and a sketch map of the wreck site showing the location from where the artifacts were recovered in relation to the wreck.

(3)(a) The institute shall review each list of objects and within sixty days from the receipt of the quarterly report release title to all artifacts reported.

(b) Objects recovered that are not considered by the institute to be artifactual items may be retained by the persons who collected the objects.

(c) If the institute has not acted by the end of the sixty days, title to the artifactual material recovered and listed on the hobby diver's report is automatically conveyed to the licensee.

(d) If the institute has determined that the licensee has violated any of the terms of this article, the institute may require that the artifacts be turned over to the institute and revoke the license.

(H)(1) All persons who have collected fossil specimens in accordance with Section 54-7-670 shall furnish the museum commission with a report, which must include a list of the fossils and a description of the places from which the fossils were recovered. Hobby divers are also encouraged, but not required, to include photographs or drawings of fossils and rough sketch plans of the site or map of the location. All reports submitted under a two-year hobby license must be filed within ten days following the end of the calendar quarter in which the activities took place. All reports under this license must be filed with the institute prior to submitting application for renewal of a hobby license. The institute will not consider applications for renewal until all outstanding reports have been received.

(2)(a) The museum shall review each list of specimens and within sixty days from receipt of the quarterly report release title to all specimens reported.

(b) Specimens recovered that are not considered by the museum to be paleontological material may be retained by the persons who collected the fossils.

(c) If the museum has not acted by the end of the sixty days, title to the paleontological material recovered and listed on the quarterly report is automatically conveyed to the licensee.

SECTION 54-7-680 . Repealed by 2002 Act No. 364, § 13, eff September 26, 2002. [SC ST SEC 54-7-680]

SECTION 54-7-690 . Intensive survey licenses; data recovery licenses; waiver; applications. [SC ST SEC 54-7-690]

(A) The institute may issue an intensive survey license or a data recovery license. Each license is exclusive to the applicant so that, for the duration of the license and any applicable exclusive interest period, the institute may not issue a license to any other person for the same location.

(B) An intensive survey license may be issued to an applicant to carry out an intensive survey for the purpose of delineating the boundaries of a specific location which the applicant believes may contain submerged archaeological historic property or submerged paleontological property.

(C) A data recovery license may be issued to an applicant to conduct data recovery on submerged archaeological historic property or submerged paleontological property if the applicant has submitted positive results of an intensive survey license which was previously issued by the institute for the same location. The results must include, as applicable:

(1) documentary archival evidence, and if no documentary evidence is found, primary and secondary sources consulted must be listed;

(2) electronic remote sensing data; and/or

(3) artifactual or fossil specimen evidence recovered from a proven site context.

(D) A person who seeks to excavate or disturb submerged archaeological historic property or submerged paleontological property shall apply for a license from the institute. Upon receiving a report of a submerged archaeological historic property or submerged paleontological property, the institute shall, within sixty days of receipt of the report, assess the property to determine its significance.

(E) The institute may waive the requirement of a license under this article if the activity underlying the license is an undertaking that is subject to Section 106 of the National Historic Preservation Act and the applicant is complying with the provisions of that law and any corresponding regulations.

(F) Applications for licenses must be made upon standard forms prescribed by the institute. Each application must include at least:

(1) the precise position of the project location including a map of sufficient detail to enable the location to be accurately depicted on a standard marine navigational chart;

(2) the depth of the project location;

(3) the applicant's opinion based upon archival or archaeological research as to specific characteristics of the submerged archaeological historic property including, at a minimum and where applicable, size, age, type and identity, methods and materials of construction, and the general condition of the property. In the case of submerged paleontological property, the applicant's opinion based upon archival or paleontological research as to specific characteristics of the submerged paleontological material including, at a minimum and where applicable, size, geologic time period, type and identity, and the general condition of the fossils. The institute may also require the applicant to submit pertinent archival, archaeological, paleontological, and other research data utilized by the applicant as the basis of the applicant's opinion;

(4) a proposed research plan which must conform to the standards of underwater archeology established by the institute and designed to recover relevant scientific, historical, architectural, paleontological or other data as well as artifacts. It must be in a form prescribed by the institute and detail the proposed techniques and methods of excavation, recovery, conservation, inventory, recordation, storage of recovered materials, dissemination of data, and the proposed starting date and length of time expected to be devoted to the work. The proposed research plan must also consist of:

(a) a description of the proposed methodology, identification, documentation, or other treatment of submerged archaeological historic property or submerged paleontological property that identifies the project's goals, methods, and techniques, expected results, and the relationship of the expected results to other proposed activities or treatments;

(b) a justification of the specific techniques and methods proposed to be used;

(5) information regarding the personnel who will be performing the work. This information must include at least the following:

- (a) the name and address of the applicant;
 - (b) the name and address of the field archaeologist who will be immediately supervising the work;
 - (c) the names and addresses of all persons who will participate in the work; and
 - (d) a listing for each individual, including the field archaeologist, of his relevant experience, training, and certifications in maritime archeology or related fields.
- (6) a listing of the proposed equipment to be used in the work or that will be available for use;
- (7) a copy of the applicant's most current financial statement and an explanation of the applicant's proposed resources financially to support the work; and
- (8) the appropriate license application fee.

SECTION 54-7-700 . Exclusive license for excavation or disturbance of submerged archaeological historic property and submerged paleontological property; conditions for issuance. [SC ST SEC 54-7-700]

(A) The institute may issue an exclusive license for the excavation or disturbance of submerged archaeological historic property and submerged paleontological property on submerged lands over which the State has sovereign control to any person or entity for the time and under the conditions as the institute considers appropriate. After an agreement has been entered into pursuant to Section 54-7-650(B), licenses may be issued if the institute determines that:

- (1) issuance of the license is in the best interests of the State; and
- (2) the applicant has completed an application which includes a research plan that meets standards established by the institute regarding professional qualifications, techniques, and methodology for recovery and dissemination of data and proper conservation of information and materials.

(B) The institute may not issue an exclusive license to a person or entity seeking title to a submerged archaeological historic property or submerged paleontological property or a portion of such property, or to a person or entity seeking to utilize a submerged archaeological historic property or submerged paleontological property for commercial salvage or other income-producing purposes, unless:

- (1) issuance of a license is consistent with the purposes of subsection (A)(2) of this section;
- (2) the applicant has provided the institute with some form of assurance acceptable to the institute that the project will be carried out and completed in accordance with the research plan approved by the institute; and
- (3) the institute finds one or more of the following conditions met:
 - (a) the property to be excavated or disturbed is, in the opinion of the institute, threatened with imminent destruction or substantial damage by natural factors or by human factors unrelated to the commercial excavation or disturbance of the submerged archaeological historic property or submerged paleontological property in question;
 - (b) the submerged archaeological historic property or submerged paleontological property is not, in the opinion of the institute, of primary scientific value, of major archaeological, anthropological, historical, recreational, or other public value;

(c) the proposed disturbance will be minor in scale and will produce information relevant to the goals of the South Carolina Institute of Archaeology and Anthropology or the South Carolina Museum Commission regarding the management and preservation of submerged archaeological historic property and submerged paleontological property; or

(d) that the subject property of the license will not be excavated by any other person in the foreseeable future and that property will remain submerged until that time.

(C) The institute may apply the requirements of subsection (B) of this section to all noncommercial applicants.

(D)(1) The institute may require a licensee to assist in defraying the cost of the institute's and/or museum's review, administration, and supervision of the license.

(2) The application fee for an intensive survey license is fifty dollars for residents and one hundred dollars for nonresidents. The application fee for a data recovery license is five hundred dollars for residents and one thousand dollars for nonresidents.

(3) The institute reserves the right to waive the license application fee, in whole or in part, if the institute considers it appropriate in order to adjust the reasonableness of the fee as a proportion of the potential value and risk in undertaking the licensed project to the anticipated costs of the institute to review, supervise, and administer the license.

(4) The license application fee must be refunded if the institute rejects a license application.

SECTION 54-7-710 . Criteria for determining whether to issue exclusive license; public hearing optional. [SC ST SEC 54-7-710]

(A) The institute shall consider at least the following criteria when determining whether or not to issue an exclusive license:

(1) the degree of archaeological, anthropological, historical, paleontological, and scientific importance and public educational potential of the proposed property including, without limitation, its eligibility for inclusion in the National Register;

(2) the date the application was received in order to give priority to the first applicant requesting a license for a particular project location;

(3) the degree and scope of planning undertaken by the applicant including project readiness and financial feasibility and commitment to undertake and complete the work;

(4) the degree of training and experience of the applicant and his personnel, as well as his professional degrees and experience of his field archaeologist or field paleontologist in the field of maritime archeology or paleontology and underwater fossil recovery;

(5) the extent to which the applicant's responses in the application are thorough;

(6) the extent to which the applicant possesses, or will possess at the beginning of the work, the necessary equipment to undertake the license activity; and

(7) the degree of public benefit to be derived from issuance of the license in relation to the degree of harm to the state's submerged archaeological historic property or submerged paleontological property to be expected from issuance of the license.

(B) The institute may not issue an exclusive license under this article unless:

(1) the institute has made a written determination that issuance of the license is in the best interest of the State; and

(2) the institute has made a written determination that the applicant has submitted a complete application, including a research plan, in form and content satisfactory to the institute which satisfies all of the requirements of this section.

(C) Accompanied by the applicant, a representative of the institute and/or the museum may visit the proposed project location to determine the license area boundaries and to confirm the information required.

(D)(1) The institute may require a public hearing before a decision regarding the issuance of an exclusive license.

(2) Public notice of an application must be posted in a prominent place at the institute and may be circulated to state, federal, and local agencies as appropriate.

(3) The public hearing may be held at a location designated by the institute.

(4) At a hearing the applicant shall present his application to the institute, agencies, and the public and allow questions, comments, and responses by these groups.

SECTION 54-7-720 . Delayed issuance of license; denial of license; reconsideration of denial. [SC ST SEC 54-7-720]

(A)(1) The institute may approve an exclusive license application from a commercial applicant but delay issuance of the license until the following conditions have been satisfied within a time period determined by the institute:

(a) the applicant has designated and, if required, placed into escrow the costs associated with the institute's monitoring of the work undertaken, if monitoring is required by the institute;

(b) the applicant has identified and received the institute's approval of the facility proposed to conduct conservation of any recovered artifacts and fossils needing stabilization or articulation;

(c) in the case of a data recovery license, the institute and the applicant have agreed upon all issues of disposition and title to submerged archaeological historic property or submerged paleontological property which may be recovered by the applicant;

(d) the applicant has furnished the institute with a form of assurance acceptable to the institute and adequate to guarantee that if work under the license is interrupted or abandoned, the necessary archaeological and/or paleontological fieldwork, analysis, report preparation, conservation, and curation will be carried out in accordance with the research plan approved by the institute. This assurance may be in the form of escrowed funds, a letter of credit, a performance bond, or other type of assurance acceptable to the institute. The type and amount of assurance may be negotiated between the applicant and the institute, but the amount normally must be a sum equal to at least one-third the amount budgeted and approved by the institute for field recovery, unless a lesser amount is determined by the institute to be acceptable; and

(e) any other condition that the institute considers necessary to protect the integrity of submerged archaeological historic property or submerged paleontological property.

(2) The requirements of item (1) of this subsection also apply to noncommercial applicants for exclusive licenses who are seeking title to submerged archaeological historic property or submerged paleontological property, other than an agency or unit of the State.

(B) If the institute determines not to issue a license, the institute shall issue a written notice of denial.

(C)(1) An applicant may request reconsideration of a denial by submitting a written request to the institute which must be received within thirty days following the date of the institute's denial notice. The request for reconsideration must address each reason for the denial and provide documentation supporting reasons for reconsideration of the issues.

(2) Any person aggrieved by the decision of the institute may request an institute hearing.

(3) The hearing must be held and the institute's final decision issued within sixty days of the date of the hearing.

SECTION 54-7-730 . Provisions which must be shown on license issued by institute. [SC ST SEC 54-7-730]

(A) Each license issued by the institute must contain at least the following provisions:

(1) the duration of the license;

(2) the boundaries of the area in which the work will be undertaken;

(3) a description of the scope of work to be undertaken by the licensee and, if a data recovery license, a description of the artifactual and/or paleontological materials expected to be recovered;

(4) a listing of the key personnel including the field archaeologist who will be conducting the work; and

(5) a description of the expected types of activity which must be undertaken by the licensee in order to restore the submerged lands following completion of the intensive survey or investigation.

(B) A license issued by the institute may contain provisions requiring monitoring of the license activity by a monitoring archaeologist and/or a monitoring paleontologist in order to ensure compliance with the provisions of the license and this article. These provisions, if any, must be so noted on the license.

SECTION 54-7-740 . Additional provisions applicable to licenses issued by State Archaeologist. [SC ST SEC 54-7-740]

For each license issued by the State Underwater Archaeologist the following provisions also apply:

(1)(a) The assignment of additional personnel or any change in the personnel from that scheduled in the application to perform the work is subject to prior approval by the institute in order to assure that the overall qualifications of the licensee are consistent with those originally considered by the institute in the issuance of the license.

(b) The institute must be afforded at least ten business days to review the qualifications of proposed new personnel before approving their assignment. If the institute fails to respond within the ten-day period the new personnel are considered approved.

(2)(a) At all times there must be a person designated by and acting for the licensee aboard any vessel or present at any phase of the work carried out under the license who is responsible for the work and the proper accounting of all artifacts and fossil specimens located or recovered and who must be familiar with and responsible for compliance with the terms and requirements of the license.

(b) At all times the work must be under the immediate supervision of a professional field archaeologist with training or experience in maritime archeology that is acceptable to the institute or, where a paleontological property is involved, a field paleontologist or museum curator that is acceptable to the museum.

(c) The monitoring archaeologist, if any, shall ensure that the field archaeologist complies with the research

plan approved by the institute.

(d) The monitoring paleontologist, if any, shall ensure that the field paleontologist complies with the research plan approved by the institute and museum.

(e) Any disputes or differences of opinion between the field archaeologist and the monitoring archaeologist must be resolved by the monitoring archaeologist.

(f) Disputes or differences of opinion between the field paleontologist and the monitoring paleontologist must be resolved by the monitoring paleontologist.

(g) If a license contains monitoring provisions, the licensee shall act in accordance with the direction given by the monitoring archaeologist and/or monitoring paleontologist, especially with respect to:

(i) methods of handling any artifact or fossil specimen so as to minimize any risk of loss, damage, substantive injury to, or deterioration of, the artifact or specimen;

(ii) methods of preserving from damage, decay, or deterioration any artifact or fossil specimen by contact with air, light, or otherwise;

(iii) methods of entering upon or dealing with any site so to avoid as much as possible any damage to the site; and

(iv) methods of cataloguing, indexing, or recording any artifacts and/or fossil specimens found upon or in the vicinity of any site whether or not those artifacts or specimens are brought to the surface.

(3)(a) Changes in financial support or equipment for the project from that listed on the license application must be approved by the institute.

(b) The licensee shall notify the institute in writing of changes or proposed changes in financial support or equipment from that noted in the license application. The notice shall contain information regarding the change in the form and detail required by the institute. The institute must be afforded at least ten business days to review the changes before making a decision whether or not to approve them. If the institute fails to respond within the ten-day period, the changes are considered approved.

(c) If the institute determines that changes or proposed changes in the financial support or the equipment for the project from that listed in the license application decrease materially the licensee's ability to carry out and complete the project in accordance with the research plan approved by the institute, the State Archaeologist may revoke the license.

(4)(a) The institute may require that security be provided and maintained for sites where submerged archaeological historic property or submerged paleontological property are discovered that are sufficiently significant to warrant protection.

(b) If the institute determines that a site warrants protection, the licensee is responsible for providing and maintaining security for the site.

(c) The State is not responsible for marking or protecting a site except as the institute may determine to be desirable in the administration of this article.

(5) During work carried out under a license granted by the institute, the applicant shall maintain logs of all activities related to the license on standard forms prescribed by the institute which must include:

(a) a day log;

(b) a survey log;

(c) a diving log;

(d) a photographic log; and

(e) an artifact log, including a catalogue numbering system prescribed by the institute.

(6)(a) The licensee may not use any means of survey or excavation that would destroy or substantially injure a submerged archaeological historic property or submerged paleontological property before its location has been documented.

(b) The licensee may not use explosives, cutterhead dredges, draglines, clam dredges, airlifts, suction dredges, propwash deflectors, or other grossly destructive devices in any aspect of activities covered under a license without the prior written consent of the institute.

(7)(a) Recovery of artifacts and/or fossils may be made only under the supervision of the monitoring archaeologist in accordance with the research plan approved by the institute.

(b) Large artifacts such as cannons, anchors, and hull remains that have not been specified for recovery in the license may not be recovered unless the licensee has obtained specific written permission from the institute.

(c) Before a division of artifacts and/or fossils in accordance with the method established at the issuance of the license, the licensee may not:

(i) devise, bequeath, transfer, convey, or dispose of by any manner an artifact or fossil recovered under the authority of a license; or

(ii) melt, render down, or in any way change the shape, character, or form of an artifact or fossil recovered under the authority of a license.

(8)(a) The licensee is wholly responsible for transporting, storing, and stabilizing all artifacts and fossils raised under the license and for the costs associated with these activities. The licensee is wholly responsible for conserving all artifacts and/or fossils to which the licensee receives title in a division.

(b) The licensee shall deliver by a safe means all artifacts and/or fossils recovered during each calendar month through the duration of the license to the conservation facility approved by the institute in accordance with Section 54-7-720(A)(1)(b) for secure storage until the artifacts and/or fossils are treated or disposed of in accordance with the license. The licensee shall ensure delivery of the artifacts and/or fossils to the conservation facility within a time that has been specified in the license.

(c) Every artifact and fossil delivered for storage to the conservation facility must be catalogued on an inventory form. The inventory form shall indicate receipt of the artifacts and/or fossils through the signature of a person authorized by the facility to receive the artifacts and fossils from the licensee. One copy of the inventory must be retained by the licensee, one copy must be transmitted to the institute, and one copy must be kept with the artifacts and/or fossils at the conservation facility.

(d) The institute may designate separate storage areas for artifacts and fossils which are bulky and of a comparatively low intrinsic historical, scientific, or educational value from those items of high intrinsic historical, scientific, or educational value.

(e) While any artifact or fossil is in storage, the State may use whatever means appropriate to inspect, document, conserve, record, and analyze the artifact or fossil.

(9)(a) The licensee shall comply fully with all applicable federal, state, or local safety regulations governing activities exercised under the privileges of the license.

(b) The licensee shall agree to indemnify the State and the institute from liability in accordance with Section 54-7-820(B).

(c) The licensee shall maintain adequate insurance coverage for workers' compensation and liability to cover all activities under the license.

(10) The licensee shall remove all waste, refuse, rubbish, or litter from the submerged lands caused by the licensed activity.

(11)(a) The licensee shall comply fully with all federal, state, and local laws and regulations which govern the activities exercised under the privileges of the license and shall apply for, receive, and fully comply with all necessary licenses and permits.

(b) The licensee shall ensure that its operations are conducted in a manner so as not to impede navigation in existing federal or state navigation channels or to damage or destroy important natural areas, geologic formations, ecological preserves, or habitat areas.

(12) In addition to any monitoring requirement that may be set forth in the license, a representative of the institute or, where paleontological property is involved, a representative of the museum may visit and be present at the location of operations carried out under a license including diving operations, storage, conservation, recordation, or any other aspect of the operations for which a license has been granted in order to ensure compliance with the license and this article.

(13)(a) A representative of the institute or other designated state enforcement authority may at any time require the licensee to produce the license for examination.

(b) A representative of the institute may examine all work done or being done under the license.

(14) Licensees shall maintain records and file reports of activities as the institute specifies in the license. All records must be open to inspection by representatives of the institute or, where paleontological property is involved, representatives of the museum during reasonable working hours.

(15) A license, or any part of a license, may not be assigned by the licensee to another person including a successor in interest of the licensee without the prior written consent of the institute. The work covered by a license may not be contracted or subcontracted by the licensee to any party not addressed by the license without the prior written consent of the institute.

(16) The licensee shall retain full responsibility for the operations conducted under the license whether or not any of the work has been contracted or subcontracted. At all times there must be a person designated by the licensee aboard a vessel or present at any phase of the operation conducted under the privileges of the license who must be responsible for the work and who is familiar with the law, stipulations, and directives concerning the work and who is responsible for compliance with them in order to insure preservation of submerged archaeological historic property and/or submerged paleontological property.

(17) The licensee shall prohibit its agents or employees from retaining any artifact and/or fossil specimens from a site.

(18)(a) No applicant may be granted more than one exclusive license for the same time period.

(b) To afford adequate protection for the interest of the State, it is the policy of the institute to limit the number of licenses granted to those that can be properly supervised, monitored, and administered by the authorized agents of the institute.

SECTION 54-7-750 . Additional provisions pertaining to intensive survey licenses. [SC ST SEC 54-7-750]

(A) The conditions set forth in this section for intensive survey licenses apply in addition to the terms and conditions for all licenses.

(B)(1) The institute may issue an intensive survey license for up to a defined one square mile area.

(2)(a) The institute may issue an intensive survey license for up to ninety days.

(b) The licensee may request in writing renewal of the license for one additional period of up to ninety days. Upon application and payment to the institute of an additional fee in the same amount as the initial fee no later than fifteen days before the expiration of the license, the institute may renew a license under which the work has adhered to the license if the institute finds the renewal to be in the best interest of the State.

(c)(i) Upon written request and payment to the institute of an additional fee in the same amount as the initial fee, at any time throughout the duration of a license, the licensee may reserve intensive survey rights in the square mile sections immediately surrounding and contiguous to the license area. Unless specifically approved in writing by the institute, the licensee may not carry out any activity in the reserved area until the institute's issuance of an additional license for the reserved area.

(ii) The institute may issue an additional intensive survey license for the requested reserved area without any subsequent additional fee if the institute has determined that the licensee has adhered to the terms of the initial license.

(C) With a minimum of disturbance to the site the licensee shall:

(1) identify the source of anomalies;

(2) delineate the extent of the site; and

(3) evaluate the potential characteristics and significance of the submerged archaeological historic property or submerged paleontological property in consultation with the monitoring archaeologist or other representative of the institute or museum.

(D) The licensee may not recover artifacts and/or fossil materials other than a limited number of small diagnostic artifactual and fossil materials that are useful in dating the site or in otherwise determining site significance.

(E) If the institute determines that the licensee has carried out the intensive survey in compliance with the license and this article, the institute may:

(1) retain the state's title and control of those artifactual and fossil items that the institute considers to be of primary scientific value or of major archaeological, anthropological, historical, paleontological, recreational, or other public value; and

(2) release the state's title to those artifactual and fossil items the institute does not consider to be of primary scientific value or of major archaeological, anthropological, historical, recreational, or other public value.

(F)(1)(a) Unless waived in writing by the licensee, the licensee has an exclusive interest for data recovery purposes in the intensive survey license area for one hundred eighty days from the expiration date of the license. The licensee must apply for a data recovery license in accordance with the provisions of this article within the one hundred eighty-day period in order to exercise the licensee's exclusive interest.

(b) If the licensee has reserved intensive survey rights in areas immediately surrounding and contiguous to the licensed one square mile section, then, unless waived in writing by the licensee, the licensee has an

exclusive interest for data recovery purposes in those reserved areas, if an intensive survey has been conducted in those areas, for one hundred eighty days from the expiration of a license related to those areas that has been issued to the licensee. The licensee shall apply for a data recovery license in accordance with the provisions of this article within the one hundred eighty-day period in order to exercise the licensee's exclusive interest.

(2) If the institute does not receive the data recovery license application for the surveyed area within the one hundred eighty-day period or the extended period, the institute may then accept license applications from other persons.

SECTION 54-7-760 . Additional provisions pertaining to data recovery licenses. [SC ST SEC 54-7-760]

(A) The conditions established in this section for data recovery licenses apply in addition to the terms and conditions for all licenses established in Sections 54-7-670 through 54-7-730.

(B)(1) An applicant may not be issued more than one license at a time for a single submerged archaeological historic property or submerged paleontological property unless the institute determines that the applicant is capable of carrying out all proposed activities in a manner satisfactory to the institute and that the licenses can be properly supervised and administered by the institute.

(2) The institute may issue a data recovery license for an appropriate period not to exceed one year. The licensee may request in writing renewal of the license for the same additional period. Upon application and payment of an additional fee not later than thirty days before the expiration of the license, the institute may renew a license under which work has adhered to the license if the institute finds the renewal to be in the best interest of the State.

(C)(1) In areas disturbed under license, all artifacts encountered must be recovered by the licensee, with the exception of large artifacts such as cannons, anchors, and hull remains which would require special handling, storage, and preservation. The licensee shall contact the institute when large artifacts or hull remains are involved.

(2) In areas disturbed under license, all specimens encountered must be recovered by the licensee, with the exception of fragile fossils which would require special handling, storage, and preservation or complete or partial intact skeletal remains. The licensee shall immediately contact the museum if complete or partial intact skeletal remains are found if the fossil needs special handling to insure its preservation on excavation.

SECTION 54-7-770 . Modification of licenses; property disposition agreements. [SC ST SEC 54-7-770]

Upon the written request of the licensee, or if considered necessary by the institute, the institute may issue a modification to the license that can add, delete, or modify provisions contained in the license if the modification is consistent with this article.

(1) The institute may determine that with respect to a particular application for a data recovery license, it is in the best interest of the State to do either, or a combination of the following:

(a) retain the state's title and control of all or a portion of recovered submerged archaeological historic property or submerged paleontological property; or

(b) enter into a disposition agreement and convey the state's title to all or a portion of recovered submerged archaeological historic property or submerged paleontological property.

(2)(a) A data recovery license issued by the institute also may include a disposition agreement that authorizes the state's conveyance of title to submerged archaeological historic property or submerged paleontological property, or a portion of the property, if:

(i) the institute and the applicant have agreed upon a division of the artifacts and/or fossils expected to be recovered which may be in value, in kind, or a combination of both; and

(ii) the applicant has agreed that its share of the division constitutes reasonable compensation for the recovery of artifacts and/or fossils to which the institute determines to retain the state's title.

(b) The institute shall act as arbiter of the division of artifacts and fossils giving due consideration to the fair treatment of the applicant and acting in the best interest of the State which may include the desire to maintain the integrity of a collection as a whole.

(c) The terms of a disposition agreement must include a provision that, except as provided in item (d) of this subsection, following the actual disposition of the artifacts and/or fossils, the licensee owns the artifacts and/or fossils free and clear of any interest of the institute or the State.

(d) The terms of a disposition agreement may include:

(i) an option or right of first refusal by the institute to purchase from the licensee after disposition of title one or more artifacts and/or fossils about which the institute has made a written determination to be of archaeological, anthropological, historical, recreational, or other public value to warrant reacquisition by the institute in certain circumstances; and

(ii) the terms of additional compensation to be received by the licensee if, after recovery of the artifacts and/or fossils, the institute elects to retain title to more artifacts and/or fossils than as originally provided in the disposition agreement.

(3) A representative of the institute or, where submerged paleontological property is involved, a representative of the museum, and the licensee shall inspect all artifacts and/or fossils recovered under the license within a reasonable time following recovery but in no event later than sixty days after the expiration of the license.

(4) The institute and the licensee shall carry out the terms of disposition of artifacts as agreed upon in the license which will allow for a reasonable time for photography, study, research, and conservation of the artifacts and/or fossils.

(5) The licensee is not entitled to claim any sum other than payment, if any, which may be provided for under the disposition agreement and is not entitled to claim reimbursement of expenses of data recovery.

(6) For a commercial applicant for a data recovery license, the applicant, if licensed, must receive at least fifty percent of the artifacts and/or fossils recovered in value or in-kind.

SECTION 54-7-785 . Finder of wreck other than licensed salvor; share of recovery. [SC ST SEC 54-7-785]

If the finder of a wreck is other than the licensed salvor (commercial applicant), the finder must receive twenty-five percent of the licensed salvor's share.

SECTION 54-7-790 . License not required of institute or of museum. [SC ST SEC 54-7-790]

(A) A license is not required of the institute for any undertaking otherwise requiring a license under this article.

(B) A license is not required of the museum for any undertaking involving paleontological property otherwise required under this article.

SECTION 54-7-800 . Suspension of license; revocation or restoration; grounds for revocation; notice and hearing; appropriation of data and artifacts recovered as result of violation of Article. [SC ST SEC 54-7-

800]

(A) The institute may suspend operations under a license at any time for just cause if it has reason to believe that the terms and provisions of a license or other applicable law or regulation are being violated. Within ten days of the suspension, the State Underwater Archaeologist or his designee shall begin investigating the facts underlying a suspension. Upon conclusion of this investigation, the State Underwater Archaeologist shall issue a written determination recommending either that the license be restored or that the license be revoked. If the State Underwater Archaeologist recommends revocation of the license, then the license shall remain suspended until the matter is resolved as provided in this section.

(B) The State Underwater Archaeologist may revoke a license for:

(1) failure to begin work under the terms of the license within the first one-third of the period of the license;

(2) failure to work diligently toward completion of the project after it has been started or failure to maintain a presence on the site if weather permits;

(3) if a licensee knowingly makes or causes to be made a false statement or report that is material to an action taken by the institute;

(4) failure to comply with any of the provisions of the license;

(5) violation of this article or any other pertinent law or regulation; or

(6) when a license has been issued based upon incorrect information, mistaken belief, or clerical error, or any other just cause as provided by this article.

(C)(1) The institute shall serve a notice of intent to revoke a license upon the licensee with a brief statement of the reasons alleged.

(2) The licensee may request a hearing within thirty days of receiving the notice by filing a written request for a hearing with the institute.

(3) The hearing must be held in accordance with Article 3, Chapter 23, Title 1, the Administrative Procedures Act.

(D) The institute or anyone authorized by the institute may appropriate any artifacts and data that have been collected or recovered as a result of a violation of this article. The appropriated artifactual materials must be managed, cared for, and administered by the institute and the appropriated paleontological materials must be managed, cared for, and administered by the museum until a hearing can be held.

SECTION 54-7-810 . Violation of Article a misdemeanor; penalties. [SC ST SEC 54-7-810]

(A)(1) A person who violates any of the provisions of Section 54-7-650(G), 54-7-660, or 54-7-670 is guilty of a misdemeanor and, upon conviction, must be punished by a fine of not more than fifty dollars. If a person holds a hobby license issued under these sections, the license may be revoked by the institute.

(2) Each day a violation continues constitutes a separate offense.

(B)(1) A person who violates the terms of an exclusive license to utilize a submerged archaeological historic property or paleontological property for commercial salvage or other income producing purposes issued pursuant to Section 54-7-690 is guilty of a misdemeanor and, upon conviction, must be punished by a fine of not more than ten thousand dollars or imprisonment for not more than one year, or both. If the person holds a license issued under that section, the license may be revoked by the institute.

(2) Each day a violation continues constitutes a separate offense.

SECTION 54-7-815 . Excavation or salvage of certain sunken warships unlawful. [SC ST SEC 54-7-815]

Notwithstanding any other provision of law, no person may excavate or salvage any sunken warship submerged in the waters of the Atlantic ocean within three miles of the South Carolina coast where there are, or it is believed that there are, human remains without the approval of the State Budget and Control Board. A person violating this section is guilty of a felony and, upon conviction, must be fined in the discretion of the court or sentenced to a term of imprisonment not to exceed five years, or both.

SECTION 54-7-820 . Retention and confidentiality of data provided to institute; exemption from liability; discovery of human remains or grave sites; issuance of licenses and administration of article; waivers and variances. [SC ST SEC 54-7-820]

(A) The institute reserves the right to retain and distribute for research or educational purposes data provided to the institute under this article. All archaeological and paleontological records of the South Carolina Institute of Archaeology and Anthropology and the South Carolina Museum Commission pertaining to submerged archaeological historic properties and submerged paleontological properties including, but not limited to, actual locations of the properties or mandatory reports from licensed divers concerning locations of the properties or objects or materials recovered from such properties, are not considered public record for purposes of the Freedom of Information Act. These records may only be opened when the State Underwater Archaeologist considers that it is in the best interest of the State to allow access to the records upon good cause shown by the persons petitioning to open the records.

(B) The State and the institute are not liable or responsible for any accident, injury, or other harm sustained by any person or loss, damage, or harm to any vessel, equipment, or property in any way connected or associated with activities conducted on or about submerged lands with or without a license. Licensees shall agree to protect, indemnify, and hold harmless the institute and the State against liabilities, suits, actions, claims, demands, losses, expenses, and costs of every kind incurred by, or asserted or imposed against, the institute or the State as a result of or in connection with the license. All money expended by the institute or the State as a result of these liabilities, suits, actions, claims, demands, losses, expenses, or costs, together with interest at a rate not to exceed the maximum interest rate permitted by law, is due and payable immediately and without notice by the licensee to the institute or the State, as appropriate.

(C)(1) If, in the course of activity licensed under this article a person discovers human remains or an apparent grave site, the person shall:

(a) leave the remains undisturbed unless the remains are a person who died in the course of diving operations or other immediate cause including, but not limited to, drowning, boating accident, or homicide;

(b) immediately notify the State Underwater Archaeologist or a representative of the institute; and

(c) suspend activity at the site until permitted to resume by the institute.

(2) The State reserves the right to recover human remains for the purpose of study or reburial in accordance with any pertinent federal or state law.

(D)(1) Except as may be otherwise specifically provided, the State Underwater Archaeologist is designated to issue licenses and otherwise administer this article.

(2) The institute may establish from time to time detailed guidelines containing archeology standards, processing requirements, and other requirements or matters relating to the administration of this article.

(E) The institute may waive or vary particular provisions of this article to the extent that the waiver or variance is not inconsistent with this article and if, in the written determination of the institute, the application of a provision of this article in a specific case or in an emergency situation would be inequitable or contrary to the purposes of the article.

SECTION 54-7-830 . Privately-owned land not subject to Article. [SC ST SEC 54-7-830]

Nothing in this article may be construed to limit or prohibit the use of privately-owned land by its owner or require the owner to obtain a license required by this article for any activity on his privately-owned land.

SECTION 54-7-840 . Educational program; underwater archaeologist on staff of institute. [SC ST SEC 54-7-840]

The institute shall:

(1) establish and maintain an educational program for the training of interested members of the public in the identification, recordation, and registration of submerged archaeological historic property and certify those who have successfully completed such training; and

(2) ensure that at least one member of the staff of the institute is qualified by training and experience in the field of underwater archaeology.

SECTION 54-7-850 . Retention and use of license fees. [SC ST SEC 54-7-850]

All license fees received by the institute pursuant to this article may be retained without regard to the fiscal year of receipt and must be used only to implement this article.

APPENDIX I: CONSERVATION EASEMENT INFORMATION

Conservation Easement Act of 1991 (SC Code of Law, Title 27, Chapter 8) and

"Protecting Historic Properties with Conservation Easements" (SCDAH Preservation Hotline #5)

TITLE 27. PROPERTY AND CONVEYANCES
CHAPTER 8. CONSERVATION EASEMENT ACT OF 1991
SECTION 27-8-10 . Short title. [SC ST SEC 27-8-10]

This chapter may be cited as the South Carolina **Conservation Easement** Act of 1991.

SECTION 27-8-20 . Definitions. [SC ST SEC 27-8-20]

As used in this chapter, unless the context otherwise requires:

(1) "**Conservation easement**" means a nonpossessory interest of a holder in real property imposing limitations or affirmative obligations, the purposes of which include one or more of the following:

- (a) retaining or protecting natural, scenic, or open-space aspects of real property;
- (b) ensuring the availability of real property for agricultural, forest, recreational, educational, or open-space use;
- (c) protecting natural resources;
- (d) maintaining or enhancing air or water quality;
- (e) preserving the historical, architectural, archaeological, or cultural aspects of real property.

(2) "Holder" means:

- (a) a governmental body empowered to hold an interest in real property under the laws of this State or the United States; or
- (b) a charitable, not-for-profit or educational corporation, association, or trust the purposes or powers of which include one or more of the purposes listed in subsection (1).

(3) "Real property" includes surface waters.

(4) "Third-party right of enforcement" means a right provided by the grantor of the **conservation easement** to enforce selected terms of the **conservation easement** which is granted to a governmental body, a charitable, not-for-profit, or educational corporation, association, or trust, which though not the holder of the easement, is eligible to be the holder of such easement.

SECTION 27-8-30 . Conservation easements generally; creation, duration and effect; conveyances. [SC ST SEC 27-8-30]

(A) Except as otherwise provided in this chapter, a **conservation easement** may be created, conveyed, recorded, assigned, released, modified, terminated, or otherwise altered or affected in the same manner as other easements and must be recorded in the same manner as other easements.

(B) No right or duty in favor of or against a holder and no right in favor of a person having a third-party right of enforcement arises under a **conservation easement** before its acceptance by the holder and a recordation of the acceptance in the office of the register of deeds for each county where the land burdened by the **conservation easement** lies.

(C) Except as provided in Section 27-8-40(B), a **conservation easement** is unlimited in duration unless the instrument creating it provides otherwise.

(D) An interest in real property in existence at the time a **conservation easement** is created is not impaired by the easement unless the owner of the interest is a party to the **conservation easement** or consents to it.

(E)(1) A **conservation easement** may be conveyed to a holder without consideration by any local governmental body, including a county, municipality, and other political subdivision, if the conveyance is authorized by the elected members of the governmental body that owns the property to be burdened by the easement.

(2) For the purposes of this subsection an elected member of a governmental body includes a member serving on the governmental body ex officio, provided that the member has been elected to another office. A governmental body consisting of appointed members may make a conveyance only with the approval of the elected members of the governmental body that appointed the members.

(3) A governmental body proposing to convey an easement shall submit a proposal to the Advisory Board of the Heritage Trust Program, and the advisory board shall conduct a public hearing on the proposal within sixty days of receiving the proposal. The public hearing may be conducted by the advisory board by one or more members of the board or one or more members of the staff of the Heritage Trust Program as designated by the chairperson of the board. The persons conducting the hearing promptly shall submit to each member of the advisory board a written summary of the testimony, public comment, and other information presented at the hearing. Within thirty days after the hearing the advisory board shall approve or disapprove the proposal based on the testimony, public comment, and other information. The approval or disapproval by the advisory board may be indicated at a meeting of the board or by written ballot of the individual members. If the proposal is approved, the governmental body shall conduct a public hearing not less than thirty nor more than sixty days after the approval, at which the easement must be explained and public comment received.

(4) For a governmental body to convey an easement under this subsection, at least two-thirds of the elected members of the governmental body shall approve the conveyance. No member of a governmental body that conveys an easement in accordance with this subsection is personally liable for the actions of the governmental body.

(5) Items (2), (3), and (4) of this subsection do not apply to an easement burdening land that is adjacent to a river or river segment whose designation as a scenic river under the State Scenic Rivers Program has been ratified by the General Assembly under Section 49-29-90.

SECTION 27-8-35 . Easements excepted from public hearing requirement. [SC ST SEC 27-8-35]

The provisions of Section 27-8-30(E)(3) of the 1976 Code do not apply to an easement conveyed by a county or municipality if the county or municipality is compensated for the easement from the Conservation Bank Trust Fund under Chapter 59 of Title 48 of the 1976 Code, or if the donation of an easement by a municipality or county is an integral part of a larger proposal for which a grant or loan is made from the Conservation Bank Trust Fund under Chapter 59 of Title 48 of the 1976 Code.

SECTION 27-8-40 . Who may bring action affecting easement. [SC ST SEC 27-8-40]

(A) An action affecting a **conservation easement** may be brought by:

- (1) an owner of an interest in the real property burdened by the easement;
- (2) a holder of the easement;
- (3) a person having a third-party right of enforcement; or
- (4) a person otherwise authorized by law.

(B) This chapter does not affect the power of a court to modify or terminate a **conservation easement** in accordance with principles of law and equity.

SECTION 27-8-50 . Validity of easements. [SC ST SEC 27-8-50]

A **conservation easement** is valid even though one or more of the following exist:

- (1) It is not appurtenant to or does not run with an interest in real property.
- (2) It may be or has been assigned to another holder.
- (3) It is not of a character recognized traditionally at common law.
- (4) It imposes a negative burden.
- (5) It imposes affirmative obligations upon the owner of an interest in the burdened property or upon the holder.
- (6) The benefit does not touch or concern real property.
- (7) There is no privity of estate or of contract.
- (8) It does not run to the successors and assigns of the holder.

SECTION 27-8-60 . Applicability of **Conservation Easement** Act to, and its effect on, property interests. [SC ST SEC 27-8-60]

(A) This chapter applies to interests that meet the definition of **conservation easement** under Section 27-8-20(1) whether designated as a **conservation easement** or a covenant, an equitable servitude, a restriction, an easement, or otherwise.

(B) This chapter does not invalidate an interest designated as a conservation or preservation easement or a covenant, an equitable servitude, a restriction, an easement, or otherwise, that is enforceable under other laws of this State.

SECTION 27-8-70 . Effect of easement on assessment of property for ad valorem tax purposes. [SC ST SEC 27-8-70]

For ad valorem tax purposes real property that is burdened by a **conservation easement** must be assessed and taxed on a basis that reflects the existence of the easement.

SECTION 27-8-80 . Condemnation of conservation easements. [SC ST SEC 27-8-80]

A person or entity empowered to condemn may condemn a **conservation easement** for other public purposes pursuant to applicable provisions of the 1976 Code or federal law. Holders of the **conservation easement** must be parties to the proceedings along with the owner of the land.

SECTION 27-8-90 . Biennial review of plight of land loss. [SC ST SEC 27-8-90]

The Board of the Conservation Bank shall perform a biennial review of the plight of land loss by small landowners and holders of heirs' property. The results of this review, upon completion, must be published in an official board report and submitted to the South Carolina General Assembly for its use.

SECTION 27-8-100 . Use of trust fund monies for beach conservation. [SC ST SEC 27-8-100]

Notwithstanding any other provision of law, the Department of Parks, Recreation and Tourism as an eligible trust fund recipient is authorized but not required to use monies it receives from the Conservation Bank Trust Fund to provide for beach conservation at the State Parks System.

SECTION 27-8-110 . Use of trust funds to acquire land adjoining state parks. [SC ST SEC 27-8-110]

Notwithstanding any other provision of law, the Department of Parks, Recreation and Tourism as an eligible trust fund recipient is authorized but not required to use monies it receives from the Conservation Bank Trust Fund to provide as a priority for the acquisition of lands adjoining the State Parks System to be used as part of the State Parks System.

SECTION 27-8-120 . Prospective repeal; termination of South Carolina Conservation Bank. [SC ST SEC 27-8-120]

Chapter 59, Title 48 of the 1976 Code and Sections 2 through 6 of this act are repealed effective July 1, 2013, unless reenacted or otherwise extended by the General Assembly. However, the South Carolina Conservation Bank established by this act may continue to operate as if Chapter 59, Title 49 of the 1976 Code was not repealed until the South Carolina Conservation Bank Trust Fund is exhausted or July 1, 2016, whichever first occurs. Any balance in that trust fund on July 1, 2016, reverts to the general fund of the State. Repeal does not affect any rights, obligations, liabilities, or debts due the South Carolina Conservation Bank. For these purposes, after the bank's termination, the State Budget and Control Board is the bank's successor, except that, after the bank's termination, the board's voting rights provided in the former provisions of Section 48-59-80(F), (G), (H), and (I) of the 1976 Code are devolved upon the Department of Natural Resources Board, and any contribution to the trust fund required pursuant to the former provisions of Section 48-59-80(H) of the 1976 Code must be made to the Heritage Trust Program.



Preservation Hotline #5

South Carolina Department of
Archives & History
8301 Parklane Road
Columbia, SC 29223-4905
State Historic
Preservation Office
www.state.sc.us/scdah

Protecting historic properties with conservation easements

Conservation easements can be powerful preservation tools. With little cost to private organizations or governments — the recipients of these easements — they encourage owners to preserve voluntarily the historic properties that document so vividly much of our state's heritage.

Q. What is a conservation easement?

A. It is a legal agreement made between the owner of a property and the easement holder — either a nonprofit organization or a governmental body. It gives the easement holder a partial interest in the property and the right to enforce the terms of the agreement. It also describes the way the owner will treat specific features of the property. An easement can be used both to protect a variety of features — scenic, natural, open-space, educational, recreational, or agricultural — and to ensure the preservation of historic characteristics.

When owners donate conservation easements for historic properties, they pledge to preserve specified historic features of the property and usually agree to obtain the easement holder's written consent before making alterations. An agreement might stipulate, for example, that permission must be obtained before certain exterior features of a historic building can be changed, before an archaeological site can be disturbed, or before a historic landscape can be altered by subdivision or new construction.

Although an easement gives the holder part interest in a property, the owner keeps the major share and can use, sell, or bequeath the property at will. Owners usually donate easements "in perpetuity" to keep the agreement in effect no matter who owns the property.

Q. How do owners of historic properties benefit by donating conservation easements?

A. An easement may also reduce federal estate taxes and lower local property taxes. Those who make their easements in perpetuity and meet other criteria could enjoy a one-time federal income tax deduction. And, most importantly, those who make easements in perpetuity will know that their historic property will be preserved always for future generations to enjoy.

Q. How do conservation easements benefit the public?

A. South Carolina is blessed with a wealth of historic properties, which enhance the quality of life and encourage tourism — the state's next-to-largest industry. Yet despite the fact that the preservation of historic properties benefits all, public agencies cannot afford to buy and maintain every historic property that merits preservation. Conservation easements, however, can fill that gap and save our heritage by making it possible to maintain significant historic properties at private expense.

Q. How do owners donate easements on historic properties?

A. Owners must find an organization that will hold an easement — a partial list is given below — negotiate an agreement that suits their needs and ensures the preservation of

the historically-significant features of their properties, then get their attorneys to review the easement documents. Some organizations that hold easements can give owners draft agreements and technical advice.

Q. What organizations in South Carolina accept easements for historic properties?

A. Some local historic preservation organizations accept easements for properties in their areas. The Palmetto Trust for Historic Preservation, a statewide nonprofit preservation organization, will accept easements in the absence of a local organization. Some local land trusts will accept easements on historic properties — especially those involving farmland, scenic vistas, or archaeological sites — though their primary goal is to preserve open land. The South Carolina Heritage Trust of the Department of Natural Resources will accept easements for significant archaeological sites.

Q. What is the legal basis for conservation easements?

A. The Conservation Easement Act of 1991, a South Carolina law, provides a sound legal basis for the donation of conservation easements to preserve the historic, architectural, or archaeological aspects of properties. The law also makes the donation of easements more attractive by requiring the local tax assessor to consider the easement when assessing the value of the property.

Q. Where can I get more information about conservation easements?

A. Your regional representative in the State Historic Preservation Office can answer questions or can mail you a copy of the Conservation Easement Act of 1991 (Title 27, *S.C. Code of Laws*) and information about federal tax incentives for making donations. (The internet address for the *Code of Laws* is www.lpittr.state.sc.us/code/statmast.htm.) The telephone number of your representative is listed on the back of this sheet. If you belong to an organization interested in accepting easements, you might want to call the National Trust for Historic Preservation at 202.673.4286 or visit its website at www.nthp.org and order its booklet "Establishing an Easement Program to Protect Historic, Scenic, and Natural Resources."

The Palmetto Conservation Foundation (803.771.0870), a statewide nonprofit organization dedicated to managing growth and advocating the wise use of the state's natural and cultural resources, can also give technical help on the use of easements.

The activity that is the subject of this brochure has been financed, in part, with federal funds from the National Park Service, Department of the Interior. The contents and opinions, however, do not necessarily reflect the views or policies of the Department of the Interior. Under Title VI of the Civil Rights Act of 1964 and Section 504 of the Rehabilitation Act of 1973, the Department of the Interior prohibits discrimination on the basis of race, color, national origin, or handicap in its federally assisted programs. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to: Office of Equal Opportunity, U.S. Department of the Interior, Washington, DC 20240.

State Historic Preservation Office Regional Representatives

| | | | |
|---|---|---|---|
| <i>Appalachian region:</i> 803.896.6172 | <i>Central Midlands region:</i> 803.896.6183 | <i>Pee Dee region:</i> 803.896.6182 | <i>Upper Savannah region:</i> 803.896.6174 |
| <i>Berkeley-Charleston-Dorchester region:</i> 803.896.6184 | <i>Lowcountry region:</i> 803.896.6173 | <i>Santee-Lynches region:</i> 803.896.6199 | <i>Waccamaw region:</i> 803.896.6179 |
| <i>Catawba region:</i> 803.896.6169 | <i>Lower Savannah region:</i> 803.896.6171 | | |

South Carolina organizations that accept easements

Local or regional organizations

Each organization has its own guidelines for accepting easements. Since this is not a complete list, you might also contact your local government, historical society, or preservation organization.

Historic Aiken Foundation

PO Box 959
Aiken, SC 29802

Historic Beaufort Foundation

PO Box 11
Beaufort, SC 29901 843.524.6334

Historic Charleston Foundation

PO Box 1120
Charleston, SC 29402 843.723.1623

Historic Columbia Foundation

1601 Richland Street
Columbia, SC 29201 803.252.7742

Pendleton District Historical, Recreational, and Tourism Commission

PO Box 565
Pendleton, SC 29670 864.646.3782

Preservation Society of Charleston

PO Box 521
Charleston, SC 29402 843.722.4630

Statewide organizations

The Heritage Trust accepts easements as one tool for preserving the state's most important archaeological sites. The Palmetto Trust can help owners of historic properties in areas where there is no local organization to accept easements.

Heritage Trust

South Carolina Department of Natural Resources
Rembert C. Dennis Building
Box 167
Columbia, SC 29202 803.734.3753

The Palmetto Trust for Historic Preservation

8301 Parklane Road
Columbia, SC 29223 803.896.6234

Local land trusts

Some of South Carolina's local land trusts have accepted easements that protect historic properties. The Lowcountry Open Land Trust, for example, has accepted an easement that protects 905 feet of river frontage and about twenty acres of high land across the Ashley River from Middleton Place.

Aiken County Open Land Trust

PO Box 3096
Aiken, SC 29802 803.685.7878

Beaufort County Open Land Trust

PO Box 75
Beaufort, SC 29901 843.521.2175

Black Creek Land Trust

PO Box 647
Darlington, SC 29540 843.393.3881

Congaree Land Trust

PO Box 232
Columbia, SC 29202 803.988.0000

Ducks Unlimited, Inc. (Lowcountry Initiative)

3870 Leeds Avenue, Suite 114
North Charleston, SC 29405 843.745.9110

Edisto Island Open Land Trust

PO Box 1
Edisto Island, SC 29438 843.869.9004

Friends of the Reedy River Land Trust

PO Box 9351
Greenville, SC 29604 864.232.9720

Hilton Head Land Trust

6 China Cockle Lane
Hilton Head, SC 29926 843.681.3424

Horry County Conservation Foundation

1202 1st Avenue
Conway, SC 29526 843.248.9118

Katawba Valley Land Trust

PO Box 1776
Lancaster, SC 29721 803.285.9455

Kiawah Island Natural Habitat Conservancy, Inc.

23 Beachwalker Drive
Kiawah Island, SC 29455 843.768.2029

Lord Berkeley Conservation Trust

223 North Live Oak Drive
Room A-5
Moncks Corner, SC 29461 843.719.4150

Lowcountry Open Land Trust

485 East Bay Street
Charleston, SC 29403 843.577.6510

Nation Ford Land Trust

PO Box 75
Fort Mill, SC 29602 803.547.2003

Naturaland Trust

PO Box 728
Greenville, SC 29602 864.242.3131

The Nature Conservancy, South Carolina Chapter

PO Box 5475
Columbia, SC 29205 803.254.9049

Pacolet Area Conservancy

PO Box 310
Columbus, NC 28722 828.894.3018

Pee Dee Land Trust

300 Russell Street, Room 209
Darlington, SC 29532 843.393.9809, Ext. 4

Playcard Environmental Education Center

PO Box 383
Conway SC 29526 843.756.1277

South Carolina Battleground Preservation Trust

PO Box 12441
Charleston, SC 29422-2441 843.556.1995

Spartanburg Conservation Endowment (SPACE)

PO Box 18198
Spartanburg, SC 29318 864.948.0000

Upper Savannah Land Trust

704 Chinquapin Road
Greenwood, SC 29646 864.223.7804

Upstate Forever

PO Box 2308
Greenville, SC 29602 864.250.0500